

GRAIN & FEED JOURNALS

CONSOLIDATED

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Chicago, Ill., U. S. A., October 12, 1938

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A Merger of Grain Dealers Journal, American Elevator & Grain Trade, Grain World and Price Current-Grain Reporter

Hybrid Corn

[See page 309]



Wide differences in the appearance of open-pollinated and different varieties of hybrid corn appear in ears picked at random from the edges of Illinois fields near Streator, on Sept. 1, though the differences are more manifest in the fields than in these samples.
From left to right: Open-pollinated, Sass, DeKalb, and Pfister Hybrids.

Directory of the Grain Trade

In Organized Markets Only Members of the Local Grain Exchange Will Be Listed

HAVING YOUR name in this directory will introduce you to many old and new firms during the year, whom you do not know or could not meet in any other way. Many new concerns are looking for connections, seeking an outlet or an inlet, possibly in your territory. It is certain that they turn to this recognized Directory, and act upon the suggestions it gives them. The cost is only \$10 per year.

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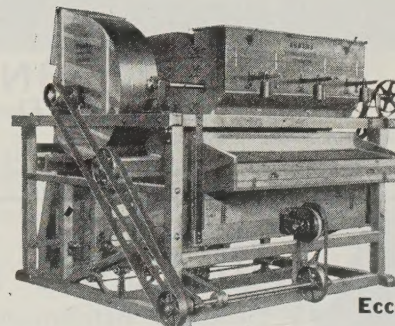
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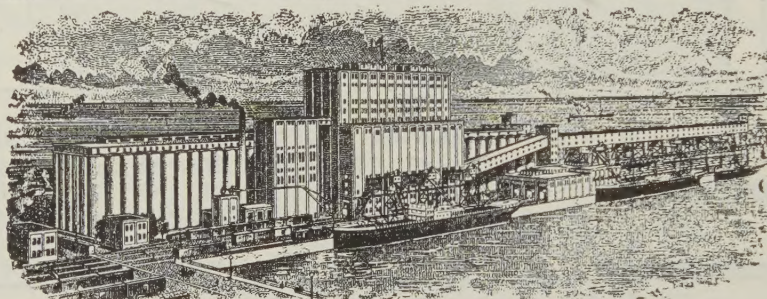
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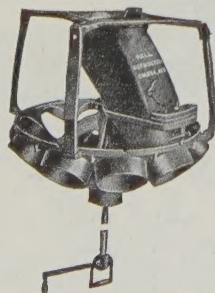
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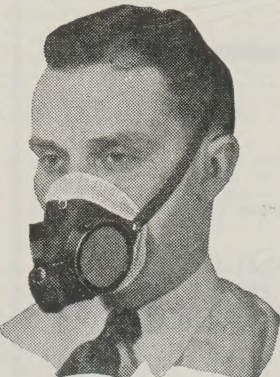
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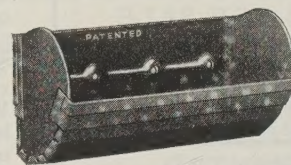
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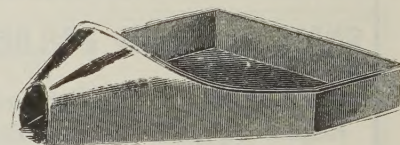
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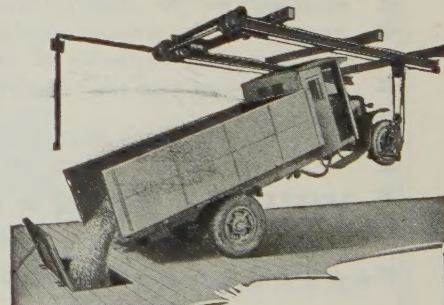
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Originals are printed on bond paper, machine perforated so they may be easily removed; duplicates are of manila. All have spaces ruled on the back for recording each load delivered on the contract. Check bound, size 5½x8½ inches, 100 sets numbered in duplicate and supplied with 4 sheets of carbon paper. **Order Form 10 DC Improved.** Price \$1.10, f. o. b. Chicago. Wt. 1 lb.

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Grain Shipping Ledger for keeping a complete record of 4,000 carloads. Facing pages are given to each firm to whom you ship and account is indexed. Book contains 80 double pages of ledger paper with 16-page index, size 10½x15½ inches, well bound with black cloth covers and keratol back and corners. Weight, 4 lbs. Order Form 24. Price, \$3.50, plus postage.

Shippers Record Book is designed to save labor in handling grain shipping accounts and gives a complete record of each car shipped. Its 80 double pages of ledger paper, size 9½x12 inches, provide spaces for 2,320 carloads. Wide columns provide for the complete record of all important facts of each shipment. Bound in heavy black cloth with keratol back and corners. Shipping weight, 2½ lbs. Order Form 20. Price \$2.50, plus postage.

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Grain Receiving Register for recording loads of grain received from farmers. It contains 200 pages of ledger paper 8½x13½ inches, capacity for 8,200 loads. Some enter loads as received, others assign a page to each farmer, while others assign sections to different grains. Bound in strong board covers, canvas back. Headings of columns are: "Date, Name, Kind of Grain, Gross, Tare, Net, Bushels, Pounds, Price, Amount, Remarks." Weight, 2½ lbs. Order Form 12AA. Price \$2.50, plus postage.

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Grain Receiving Ledger has 200 pages linen ledger paper and 28-page index, 8½x13½ inches, numbered and ruled for 44 entries. Well bound in pebble cloth with keratol back and corners. Weight, 3 lbs. Order Form 43. Price, \$3.00, plus postage.

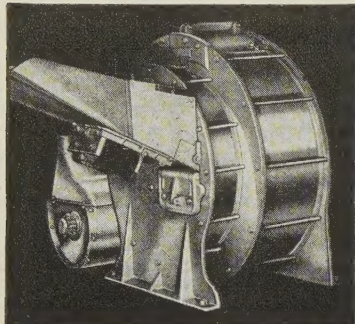
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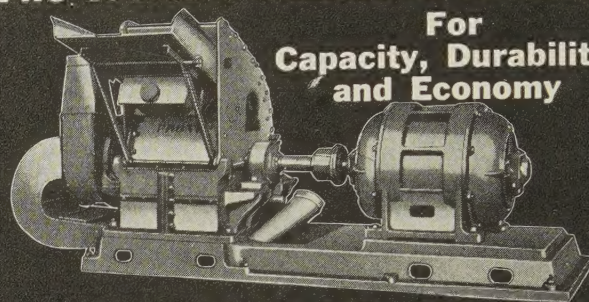
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Charles S. Clark, Manager

A merger of
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Established 1898

AMERICAN ELEVATOR & GRAIN TRADE
Established 1882

THE GRAIN WORLD
Established 1928

PRICE CURRENT - GRAIN REPORTER
Established 1844

Published on the second and fourth Wednesdays of each month in the interests of better business methods for progressive wholesale dealers in grain, feed and field seeds. It is the champion of improved mechanical equipment for facilitating and expediting the handling, grinding and improving of grain, feeds and seeds.

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THE ADVERTISING value of the Grain & Feed Journals Consolidated as a medium for reaching progressive grain, feed and field seed dealers and elevator operators is unquestioned.

Advertisements of meritorious grain elevator and feed grinding machinery and of responsible firms who seek to serve grain, feed and field seed dealers are solicited. We will not knowingly permit our pages to be used by irresponsible firms for advertising a fake or a swindle.

LETTERS on subjects of interest to those engaged in the grain, feed and field seed trades, news items, reports on crops, grain movements, new grain firms, new grain elevators, contemplated improvements, grain receipts, shipments, and cars leaking grain in transit, are always welcome. Let us hear from you.

QUERIES for grain trade information not found in the Journal are invited. The service is free.

CHICAGO, ILL., OCTOBER 12, 1938

NEITHER profits or cordial relations are promoted by overbidding contests.

SO MANY fires are traceable direct to dirty cob houses the wonder is any elevator owner will tolerate the hazardous shed.

WHEAT CROP insurance may help lazy farmers to derive some revenue from their acres, but it will also encourage careless methods and indifferent practices.

OPERATORS of elevators infested with weevil, flour moths and other destructive pests can not ignore the dust and dirt which provide a veritable paradise for the bugs.

BUYING OF BUTTER by the government has been successful in wasting \$60,000,000 of the taxpayers' money, in encouraging the production of a surplus, in piling up a record-breaking stock of 217,000,000 pounds and in proving once more the folly of price-pegging by government.

RAILROAD CLAIM agents have no terrors for the grain shipper who has his shipping scales tested periodically and can prove how much he loaded into the car. The railroad is liable anyway for the difference.

CAREFUL elevator operators not only strive to safeguard all moving machinery and open pits, but they keep insured against injuries to employes and visitors. Suits for damages resulting from occupational injuries or diseases are always annoying and often expensive.

GRAIN DEALERS who are interested in obtaining relief from excessive taxes and burdensome reports on every business activity are selecting committees of forceful friends to interview all candidates for law making bodies in hope of securing real relief for business.

DISTRIBUTORS of rubber checks are again buying large orders of feed at Indiana elevators and paying with real checks on an Indianapolis bank for amounts in excess of the price of their purchases. Some of these careless customers forget to call back for the merchandise bought.

BUYING grain from strangers is always accompanied with extra hazards that cautious dealers seek to forestall by writing or printing on the face of the check, "for grain free from all liens." The farmer who accepts and endorses such a check, when grain is covered by a lien, is guilty of misrepresentation and fraud.

CREDIT insurance is so expensive and so unsatisfactory grain merchants of experience are refusing to buy such policies. Grain dealers have made good on their old time sign: "CASH paid for grain," so many years they are fully entitled to receive cash for what they sell, but the easier they are in extending credit the greater will be their accumulation of slow accounts.

NEW GRAIN RATES from Chicago to the east seem very low in comparison with rates in western territory; but the eastern lines enjoy a density of traffic in industrial regions entirely lacking in the agricultural west. Common stock of the C. & N. W. Ry., a leading grain carrier, paid 7 per cent dividends in 1902 and sold at \$271.00 per share. In 1937 it paid nothing and sold at 87½ cents per share, whereas the Norfolk & Western common stock advanced from \$81.00 in 1902 to \$310.00 in 1936, with a dividend that year of 15 per cent. Volume of traffic is so light on the granger lines they must reduce operating expenses by way of wage reductions, or abandon the more unprofitable branches. Truckers are transporting the freight at the expense of the railroads and the country communities.

SHUCKS from machine corn pickers always clog the cleaner and greatly increase the fire hazard, so machine picked corn is more expensive for the elevator operator to handle. A liberal discount would encourage farmers to keep the shucks at home.

IF YOU have not complete confidence in the accuracy of your truck scales, how can you expect grain sellers to accept your weights? The installation of large truck scales and their occasional testing and resealing not only protects you against overweights but discourages damaging gossip about short weights. The best scales obtainable is none too good to determine how much cash you shall pay.

NARROW MARGINS have long been the curse of the elevator operators, and sad to relate, no improvement has been effected by increased taxes of many descriptions and the great expense of compiling frequent reports for lazy bureaucrats to push around. The grain dealer who keeps an accurate record of his cost of handling grain has definite knowledge of what is a safe margin. The usual estimate is only a wild guess.

EVERY TIME a thunderstorm approaches the highest building in town the owner wishes it was equipped with modern lightning protection, and he deeply regrets he neglected to accept the offer of the fire insurance company to pay for the installation of rods in credits on the annual premium. The number of these preventable fires is annually being reduced, but lack of protection for any grain elevator is inexcusable.

THE PARAGRAPH in last number calling attention of the smaller feed mixers to the necessity of closer connection with a commercial analytical laboratory to avoid prosecution under the pure food and drugs act and to save expense by not putting more of the valuable ingredients into the feed "to be on the safe side," is objected to by one reader as casting reflection on the small mixers and harming their business by deterring buyers from patronizing them. The small mixer has nothing to fear, since buyers will purchase his product freely when he protects the buyer who retails by a guaranty that the contents of the sack are as represented on the label or tag, and will employ legal talent to defend the retailer if any consumer questions the contents. One small mixer in central Illinois is defendant now in a suit brought by a woman poultry producer because her chicks died, and chemical analysis, made too late, now discloses not only deficiency in nutrients but enough free fatty acid to kill the chicks. A protein, fat and fiber determination made by a commercial laboratory at a cost of only \$3 might save a \$50 fine.

BARTON county, Kansas, grain buyers are discounting heavily late deliveries of wheat because of live weevil contained. Evidently the distributors of farm loans have a busy season ahead of them.

A COMPLETE set of separators ahead of the feed mill not only reduces the bill for power, but protects the mill from the introduction of tramp iron and other foreign matter. Observing owners greatly prefer protection to destruction.

GRAIN BUYERS who haul grain from the farm to the elevator for two cents a bushel owe it to themselves and their competitors to keep a detailed record of the costs of operating trucks. Frequent conferences of grain merchants serving any community might open the door to surer profits. Conditions prevailing in many communities would surely justify a much higher charge.

TO ADD more confusion to the corn growers' marketing problem comes the AAA suggestion that farmers buy back 1937 corn held as security for defaulted loans. The accumulation of surplus stocks of any commodity has never helped to hold up the price, but the agricultural meddlers do not believe it, so the corn farmers will continue to suffer in markets depressed by blundering bureaucrats.

TERMINAL companies doing switching for the railroads at their plants may get back their allowances from the railroads as the result of the Supreme Court granting a review of the lower court decision in the case of two Chicago corporations whose allowances were declared invalid by the Illinois Commerce Commission. Such switching service is worth something and when the plant management provides a locomotive and crew to handle its cars the carrier can well afford to pay.

EFFECT of a processing tax on wheat would be to force the domestic price down to the level at which wheat could be exported profitably, and keep it down as long as the United States had a surplus for export. When the 30-cent processing tax went into effect in July, 1933, wheat prices were far above the export level, and wheat for the December delivery dropped from \$1.24 July 18 to 94 cents July 20, just 30 cents, in three days. As compared with the present unsatisfactory policy of raising the domestic price of wheat for the benefit of non-co-operating wheat growers by subsidizing exports of wheat and flour, the processing tax recommends itself to the bureaucrats seeking to regiment the farmer by compelling the non-co-operator to sell at the bottom export level, while giving the Washington bureaucrats 30 cents per bushel to bribe co-operators to remain under the yoke, at least until the more numerous consumers rebel at paying 35 to 50 per cent more for flour.

LEGISLATIVE interference with industry and labor is capable of unlimited expansion under the general welfare clause of state and national constitutions, relied upon by the Supreme Court of California in sustaining the statute forbidding sales below cost, and thus depriving the merchant of his former right to sell his products at any price he chose. In its recent decision in the tobacco case the court said it might be true, as alleged by defendant, that the law would fail to effect its purpose and was unwise policy, but that the court could not question the policy of the legislature, and must take the opinion of the legislature as conclusive.

The Blight of Export Subsidies

Unfortunately for the wheat growers of the U. S. A. the autocrats of the AAA refuse to learn anything by experience and ignore economic laws with a stubborn persistency that is most discouraging. During the first two months of the present crop year, enterprising grain merchants exported nearly 20,000,000 bushels of wheat, but since the Federal Surplus Commodities Corp. has started buying wheat for export, only 11,504,580 bushels were exported up to and including September 30th.

During the short period the corporation has been striving to encourage exports up to October 1st it had bought 15,657,645 bushels of wheat and has sold eleven and a half million bushels of its purchases at an average loss of 12.6c a bushel. The taxpayers will make up this big loss without any marked increase in the wheat exports and without commensurate benefits to the wheat growers. The corporation's purchases include 2,549,299 bushels purchased on the Pacific Coast and 8,907,381 bushels purchased at the Gulf ports.

The very fact that the Surplus Commodities Corporation is buying wheat in large volume and selling it to exporters prompts foreign buying agencies to delay their purchases until the eagerness of American exporters to sell effects a further reduction in the price. The assistant secretary of state in a New York address yesterday, said "Export subsidies are unsound and have always proved an extremely costly disappointment. Subsidies invariably create more problems than they solve. Export subsidies are powerless to move exports in the face of quota restrictions, export licenses and anti-dumping laws. Subsidies constitute an un-economic giving away of our substance to foreign consumers."

The AAA has instituted so many rules and regulations for the wheat growers, government interference with either the production or the marketing of wheat is being bitterly resented by the growers who are beginning to recognize that

they suffer more harm from bureaucratic regimentation and regulation of their business than they have ever been benefited.

The Mandatory Corn Loan

Congress in enacting the latest A. A. Act wisely relieved the bureaucracy of the discretion to set the loan value on corn in farmers' cribs, thereby removing one of the uncertainties preventing industry from planning future activities.

The language of the Act is so specific that farmer and merchant can know in advance the exact number of cents per bushel of the loan to be announced in November by the bureaucracy, and can govern themselves accordingly.

The law sets 52, 55, 60, 65 and 70 per cent of parity as the amount of the loan, the higher figure governing in years when, as at present, the crop estimate does not exceed a normal year's consumption and exports, and the market price is below 75 per cent of parity on Nov. 15.

Accordingly the next loan should be set at 61 cents per bushel, which is so far above the present farm price of 46 cents that cribbing should be stimulated. Stocks of old corn on farms Oct. 1 are reported by the Buro to be the largest at that date in the 13 years that such estimates have been made, 352,458,000 bus. So much of this is ineligible for loans or is needed for feed that the present government-backed loans account for only one-seventh of the total, and the new crop may add another 50,000,000 to the amount under seal, and which at present price levels will pass into outright government ownership. This amount is not sufficient to control the price of the 2,700,000,000 bus. not under seal, which will continue to be controlled by the law of supply and demand.

It is conceivable that the A.A.A. will sell its corn in the domestic market and make it more difficult for the non-co-operating corn grower, or sell its corn to exporters at a loss, just as the wheat is now being handled. This loss may be very great if the price of corn declines to the level of December, 1932, when it sold at 22 cents per bushel, equivalent to 13 cents gold under the devalued dollar.

With cash corn moving freely at present into and out of central markets merchants are transacting a profitable volume of business under conditions of trade that are normal, and this satisfactory state of affairs promises to continue until the new crop is disposed of.

The situation must be unsatisfactory to the bureaucracy who are earning the enmity of the greater number of corn growers not eligible for loans, without being able to convince co-operators that the market price would not be as good as the loan level without government interference. At least the corn grower

knows he is getting 57 or 61 cents per bushel by Act of Congress and not by grace of the bureaucracy.

Re-Organization of Department of Agriculture

Evidently, disgusted with the results attained by the many bureaus and departments of the U. S. Department of Agriculture has resulted in the re-organization of the Department primarily, "to meet new responsibilities." The Department has become so large and its planning so involved that even department heads have been confused by the indefinite aims and purposes of the different bureaus.

Notwithstanding, many economists and some governmental agencies have long contended that the supervision of the marketing of any commodity rightfully belongs to the Department of Commerce. However, under the new order issued last week the execution of marketing work is lodged in four units responsible to the Secretary of Agriculture through the director of marketing and regulatory work.

Up to the present writing, most of the attempts of the Department to interfere in any way with the marketing of various products has proved extremely injurious to the best interests of the producers. The piling up of surplus stocks of eggs, butter, cotton and wheat has served to depress the market value of these commodities far beyond any benefits resulting to the producers. All of the Department's attempts to boost prices of farm products have proved a most disastrous fiasco. It would seem that the distressing results of the \$500,000,000 campaign of the Federal Farm Board to boost the price of wheat should induce all successors to avoid accumulating a surplus of any food products, but it is so easy for the bureaucrats to wade out over their heads in impractical schemes for gaining control of all farm activities that the leaders seem unable to see the muddy trail of the old Farm Board.

While combining all marketing and regulatory activities may simplify or co-ordinate the various agencies dominating the marketing of farm products it is not probable that any results of practical benefit to producers will result. The conviction that the activities of the Department should be confined to production is gaining strength even with many farm leaders. The marketing of farm products always has been and always will be controlled definitely by supply and demand despite any of the wild theories presented in support of the so-called ever-normal granary. Acreage allotments, marketing quotas, parity payments, and all other so-called conservation and adjustment programs seem to be planned primarily for pushing quack panaceas that serve principally to lead the farmers back into the wilderness.

Differences in Hybrid Corn Varieties

"When corn was just beginning to dent," commented B. J. Reinmann, manager of the Garfield Grain & Coal Co., which has an 85,000 bushel elevator at Garfield, a few miles east of Wenona, Ill., "a farmer stopped in with samples of five different hybrid corns, all picked at random from fields within a few miles of each other.

"It is surprising what a lot of difference appeared in these samples, altho all were picked on the same day. Some were dark in color, some were light. Some ears showed regular rows, some irregular. Some had shallow kernels, some had deep kernels. A great deal of difference appeared between the different varieties in kernel sizes and shapes."

Mr. Reinmann's observation supports the conviction of hybrid corn breeders that almost any desired kind of corn may be developed from selected inbred lines. If, for instance, a corn particularly high in starch content is desired for sale to corn products industries and peculiarly adapted to use by these industries, such a corn may be developed by selecting and mating the proper inbreds. If a more palatable corn is desired for the cattle feeding trade, such a corn may be developed by the same means. If a heavy stalked corn is desired to withstand the ravages of the corn borer and stand straight and strong to picking time, this, too, is possible thru controlling both the male and female parentage of the plant by use of suitable inbred lines.

Since their primary purposes, strong, healthy corn plants with strong, straight stalks, producing greatly increased yields, have been accomplished thru combining of inbred parents corn breeders are giving thought to further improvement thru elimination of some of the so-called disadvantages of hybrids, and to the development of specialized varieties.

Feeders, it is said, complain that some hybrids are so hard that they are not eaten freely by cattle and hogs, and hence do not produce the gains that are expected from their use. This is one of the problems on which hybrid corn breeders are working, and they are reported to have made a good start in developing highly palatable varieties, tho they still have the problem of combining palatability with strong stalks and high yields. Rumors drift about a calico variety that cattle and hogs eat with great relish; and about rats causing heavy damage in cribs holding some varieties of hybrids, while avoiding nearby cribs of other varieties.

Breeding specialized varieties of corn for specific purposes is no simple task. It requires the specialized knowledge of the plant breeder who knows how to fix and combine plant characteristics, plus the patience of Job, but the promise of success is more clearly visible than when the corn breeder depended on selection of seed from open-pollinated fields. Mixing of characteristics thru open pollination left control of these characteristics to a beneficial nature that was more concerned with

producing seed and propagating the corn plant than with the fixing of specialized characteristics desired by man for special and personal purposes. Trying to fix characteristics by selection of seed from open-pollinated fields had its end fogged thru a seemingly contrary nature. But today the corn breeder, like the animal breeder, has a solid foundation from which to start. He has inbred lines with fixed characteristics and can keep both parents of the plant he develops under control.

Ahead of hybrid corn is a long and glowing future that bespeaks new hope for new industries, and new foods for the animal kingdom and for the human race.

Increased Yields from Adapted Seed Corn

Corn is sensitive to local conditions. Using seed corn from locally high-yielding well adapted seed, declare M. L. Mosher and H. C. M. Case, of the Illinois Agricultural Experiment Station, in a current bulletin, is one of the most effective ways to increase corn yields. They support this contention with data showing that recommended strains of seed corn on 3,644 fields yielded approximately 3 bushels per acre more than all other strains on 2,437 fields, admitting at the same time that some local selections and unknown selections were undoubtedly good.

To careful drying and storage of seed corn these authors attribute an increase in yield of 2 bushels per acre. Seed corn should be dried with heat in the fall, and stored where it will not freeze.

Dust treatment of seed corn for the control of diseases is most effective on poorly treated soil, according to these studies. On well-treated soil the corn grown from treated seed yielded .4 bushel an acre more than corn grown from untreated seed; on fairly well treated soil it yielded 1.1 bushels per acre more, and on poorly treated soil it yielded 1.2 bushels an acre more.

Sioux Falls, S. D.—The 1938 national corn husking championship contest will be held near here on Nov. 3. The contest field will be the best of four specially planted fields in Minnehaha county.

Dufresne, Man.—A farmer living near here solved the theft of grain from his granary and trapped the thieves by the ingenious plan of mixing torn catalogue pages and black and white chicken feathers in the remainder of his grain after a load had been stolen. The thieves returned a second time breaking a window to get into the granary and departed with another load. Discovering the theft, officers who were called in traced the tracks left by the visitors, came upon two men in auto with trailer loaded with 70 bus. of grain. Investigation disclosed the telltale feathers and paper among the wheat while none was found in the wheat on the men's farm from which they claimed to have taken the load. Arrest and conviction followed.



Ears are a uniform height on the stalks of hybrid corn in this field of Pfister hybrid corn near El Paso, Ill.

[See outside front cover.]

Asked—Answered

[Readers desiring trade information should send query for free publication here. The experience of brother dealers is most helpful. Replies to queries are solicited.]

Under Wage and Hour Act?

Grain & Feed Journals: We employ 2 men in our office and 2 men in elevator and warehouse. We buy feedstuffs from out of the state, that is, shipping in carloads of cottonseed, soybean and trucking in some feed from Kansas City, Mo.

Do you think we would come under the Wage and Hour Act?—Midwest Mills, Abilene, Kan.

Ans.: Being engaged in interstate commerce (from Kansas City, Mo.) the Midwest Mills are subject to the Act, and required to comply with the 44, 42 and 40-hours per week, and the 25, 30 and 40 cents per hour wage.

Responsibility for Grain in Storage

Grain & Feed Journals: An elevator in Illinois holds storage receipts, backed by an accepted field warehousing company, for grain held in an interior market terminal elevator that was taken over by its creditors under a receivership.

These warehouse receipts were issued by the warehousing company to the interior market terminal elevator, and endorsed by the operator of the terminal to the country elevator to cover the two carloads of soybeans involved, and held in storage at the terminal at the customary storage rates.

Unfortunately the terminal had been getting loans from several bankers on warehouse receipts for which it held no grain in the elevator. When the banks found this out they promptly threw the company into receivership, and sold the grain that was in the house, so that the elevator could be leased, placing the money received for this grain in a separate account.

The soybeans covered by the country elevator's storage receipts were actually in the elevator at the time it was thrown into receivership, and they were the only soybeans in the house. The terminal elevator's superintendent admits that these beans were the property of the country elevator.

The country elevator manager has voluntarily paid the actual farmer owner for the two carloads of beans involved, and has entered a preferred claim for the money brought by the beans when they were sold. However, the banks have not released to him the funds involved, some question seeming to appear in their minds about whether or not they can seize these funds in partial settlement of their claims against the property. It is understood that the country elevator involved expects payment of its claim without trouble; but what is its position should the receiver hold up payment of its claim indefinitely?—Traveler.

Ans.: When grain covered by a warehouse receipt is removed without settling with the holder of the receipt someone is guilty of theft, larceny as bailed, or conversion.

If banks' receipts called for wheat, corn, oats, rye, etc., the banks cannot touch the soybeans, admittedly the property of the holder of the soybean receipts.

If banks' receipts called for soybeans then there should be a pro-rata division of the beans among the receipt holders; and if not enough beans on hand the warehouseman's bondsman must settle for the shortage.

The language of the bond determines to what extent the bondsman is liable, except in states where statutes prescribe the bond.

Under field warehousing a custodian is supposed to see that no grain goes out unless receipt is surrendered. If forged receipts were given to banks with no grain received, the banks cannot seize any grain. If grain was actually received and later shipped out without

surrender of receipts the field warehousing company's custodian failed and the warehousing company should be liable.

If the banks held no Inland Warehouse receipts covering soybeans, and undertook to sell the soybeans, they are liable for wrongful conversion of property. Regardless of the fact that they placed the money received in a separate account, they are liable for the highest price soybeans reach between the time they seized the beans and the time they settle. Their proper action was to move the beans to another elevator and pay storage on them until they settled with receipt holders.

Dealers in Sorghum Grain?

Grain & Feed Journals: We are receiving inquiries from the country for prices on sorghum grain, and as this is a new commodity in this territory, we are attempting to locate dealers that handle same.—Mid-West Grain Co., C. E. Klindt, Omaha, Neb.

Ans.: Grain sorghum is not grown to any considerable extent east of the Missouri River, as it is a dry climate crop, adapted to the Southwest, where Texas, this year, produced 54,777,000 of the United States' 109,265,000-bu. crop. Kansas produced 16,577,000 and Oklahoma 13,776,000 bu.

Ft. Worth and Amarillo are leading markets, whose dealers should be able to quote prices on grain sorghum. Their names appear in "Directory of the Grain Trade" on inside front cover page.

Nebraska Dealers to Meet Oct. 27

The Nebraska Grain Dealers Ass'n will hold its annual convention at the Fontenelle Hotel, Omaha, Neb., Oct. 27.

Reports of officers will be presented at the business session beginning 10:30 a. m.

Truck laws and their enforcement will be discussed in the afternoon under the able leadership of Chester Weekes of St. Joseph, Mo. Other topics scheduled are the mortgage lien law and the 10 days' free storage of grain.

At the banquet in the evening it is expected that Ray B. Bowden, vice pres. of the Grain & Feed Dealers National Ass'n, will be the speaker.

Coming Conventions

Trade conventions are always worth while, as they afford live, progressive grain dealers a chance to meet other merchants from the same occupation. You can not afford to pass up these opportunities to cultivate friendly relations and profit by the experience and study of others.

Oct. 17, 18. Independent Feed Dealers of Iowa at Des Moines.

Oct. 27. Nebraska Grain Dealers Ass'n, Fontenelle Hotel, Omaha, Neb.

Nov. 17, 18. Ass'n of American Feed Control Officials, Raleigh Hotel, Washington, D. C.

Dec. 3. Western Seedsmen's Ass'n, Hotel Kansas Citian, Kansas City, Mo.

Dec. 6, 7, 8. Farmers Elvtr. Ass'n of South Dakota, Mitchell, S. D.

Jan. 24, 25, 26. Farmers Grain Dealers Ass'n of Iowa, Savery Hotel, Des Moines, Ia.

Feb. 7, 8, 9. Farmers Grain Dealers Ass'n of North Dakota, Devils Lake, N. D.

Apr. 2, 3, 4, 5. Society of Grain Elevator Superintendents of North America, Milwaukee, Wis.

May 25. Missouri Grain, Feed & Millers Ass'n, The Elms Hotel, Excelsior Springs, Mo.

June 12, 13, 14, 15. American Seed Trade Ass'n, Fairmont Hotel, San Francisco, Cal.

From Abroad

Corn export permits have been discontinued by the South Africa Control Board in view of drouth.

Italy's corn crop is expected to be unusually small because of drouth, and large imports of corn are considered likely.

Denmark—A decree of the Danish ministry of agriculture, effective Aug. 26, requires a permit from the Danish government for imports or exports of rye or wheat, as either grain or flour.

France 1938 crops are estimated as follows, with 1937 comparisons in parentheses: Rye, 31,652,000 bushels (29,119,000); barley, 58,468,000 (46,692,000); oats, 374,713,000 bushels (299,453,000).—International Institute of Agriculture, Rome.

Germany 1938 grain crops are reported as follows, with 1937 comparisons in parentheses: Wheat, 198,524,000 bushels (164,121,000); rye, 333,170,000 (272,296,000); barley, 191,846,000 (167,086,000); oats, 432,239,000 bushels (407,748,000).—Berlin office, Bureau of Agricultural Economics.

Turkey's forecast of its 1938 wheat crop is placed at 160,421,000 bushels as against 136,483,000 bushels harvested in 1937; corn, 28,148,000 bushels as against 23,349,000 bushels last year.—International Institute of Agriculture, Rome.

American reciprocal trade treaty officials have asked the United Kingdom to discontinue its 6c per bushel preferential tariff treatment of "Empire" wheat under the Ottawa agreement. Recent developments, it is said, indicate that this concession will be granted with the approval of Canada.

The Argentine Senate has passed a bill empowering the government to fix minimum quotations on wheat, corn and flax of the next crop, or to subsidize farmers, "whichever it considers necessary for defense of national production." The bill was passed earlier by the Chamber of Deputies.

The Netherlands—Minister H. Colijn has agreed to institute an inquiry with a view to reimburse the private grain trade for its losses on stocks when the government increased its levies recently. He says there will be no further increases in grain levies. Other means of agricultural relief will be studied.

Buenos Aires, Argentina—The Ministry of Agriculture has estimated the area sown to wheat in the Argentine for the 1938-39 harvest at 8,100,000 hectares (20,015,100 acres), an increase of 322,000 hectares (695,662 acres) over the 1937-38 crop. Flaxseed sowings are estimated at 2,780,000 hectares (6,861,380 acres), or 62,000 hectares (153,202 acres) less than last year.

Argentina has nominated Senor Carlos Brebbia, Argentine Minister in Hungary, and former Under Sec'y of Agriculture, as its representative to the Wheat Advisory Com'te in London. Argentina was originally a member of the Com'te set up under the International Wheat Agreement in 1933, and which now represents 21 governments, but withdrew its membership in 1936. The life of the Com'te has been extended another two years.

The British firm of T. Ross Smyth & Co. has contracted with the Rumanian National Institute of Co-operatives, which is acting for the Rumanian government, to sell 400,000 tons of Rumanian wheat in Great Britain, or in countries with free or strong currencies, during the current season. The Rumanian government is financing the deal, prefers shipment in Rumanian ships, has asked for immediate disposition of 100,000 tons of wheat, and is estimated to have 1,200,000 tons available for export.

Argentina—The National Grain & Elevators Board has given notice of adoption of classifications for wheat similar to the stand-

ard grades adopted earlier for linseed, and in accordance with a law requiring fixed, permanent grades for all grains grown in the country. Wheat has been divided into three types according to the zone in which it was grown: Rosafe, Buenos Aires and Bahia Blanca, and again sub-divided under the headings of "duro," "semi-duro" and "blando." These sub-classifications apply to all three types with the exception of Rosafe, from which "blando" has been omitted. The grades are Super, No. 1 S, No. 2 S, No. 3 S, and No. 4 S, and for trade purposes the terms will be used in the order of: zone, type and grade. The standards will be enforced on the 1938-39 crop.

Fred Uhlmann Passes On

Fred Uhlmann, Glencoe, Ill., long known as the "grand old man" of the Chicago Board of Trade, a former director and vice-president of that organization, and for half a century a leading figure in the grain trade, passed away early on Oct 10, at St. Luke's hospital, Chicago, following an operation. He was 74 years old.

Mr. Uhlmann was born May 19, 1864, and attended school at Fuerth, Bavaria, Germany, until he was 15 years old. While still a young man he came to America, landing in June, 1888. Soon thereafter he became associated with Rosenbaum Brothers, and began to learn the grain business, working himself up thru the ranks until he became an officer of the concern. Later he became associated with the founders of J. Rosenbaum Grain Co., from which organization he resigned in 1921.

In March, 1923, Mr. Uhlmann founded the Uhlmann Grain Co., an international organization, incorporating every branch of the grain business, including private wires, and large export interests. An offshoot of this business is the Uhlmann Grain Co. at Kansas City, in which Mr. Uhlmann was associated with his son, Richard F. Uhlmann, his nephew, Paul Uhlmann, and his son-in-law, Jack A. Benjamin, this company operating the M.K.T. terminal elevator at Kansas City, and the Enid Terminal Elevator, at Enid, Okla.

Mr. Uhlmann served as a director of the Chicago Board of Trade in 1929-30-31, and was second vice-president in 1932. In addition to his grain interests, he was a director of the Missouri-Kansas-Texas railroad, a former director of the American National Bank, and associate of Northwestern University.



Fred Uhlman, Chicago, Ill., Deceased.

Letters from the Trade

[The grain dealers' forum for the discussion of grain trade problems, practices and needed reforms or improvements. Dealers having anything to say of interest to members of the grain trade are urged to send it to the Journals for publication.]

Business on Edge

Grain & Feed Journals: The grain trade is all upset, as are other forms of business in this country, owing to the fact that the government has all business men on edge. Business men seem to have lost confidence in the future.

With the government sealing so much corn, and making loans above the market on other grains, the grain trade is wondering when, and what grains it may handle.—J. F. Burns, Farson, Ia.

Railroad Abandonment

Grain & Feed Journals: With regard to the Burlington discontinuing operation of its branch line from Koyle, Ia., to Cainsville, Mo., we would say that for several years past the grain crops have been small in that particular territory.

Truckers have fought for what surplus grain was raised, buying it direct from farmers and trucking it into Southern Missouri and Arkansas and delivering it to feeders, where the crops have been more or less deficient for several years. Considerable of the 1937 crop in that territory was trucked direct from farmers to live stock feeders in Kansas, and, some of it was trucked to the St. Joseph and Kansas City markets.

The railroads, as well as grain elevators, in this particular territory, have finally become monuments to bad judgment.—H. W. Talbott, Talbott Grain Co., Osceola, Ia.

Inequality in Freight Rates

Grain & Feed Journals: Eastern railroads are publishing reduced export rates on grain from Chicago to the Atlantic seaboard of about 3¼ mills per ton mile, a ridiculously low level and obviously unprofitable; but our western roads continue to publish farm to market rates that figure 10 to 210 mills per ton mile, average about 25 mills, or seven times this eastern export rate, a ridiculously high and unprofitable level, because they lose so much to trucks.

On many of these farm to market movements the rails lose 100 per cent of the available shipments, whereas reasonable rates would recapture a tremendous amount of very profitable business.

How much longer will farmers and merchants of the middle west stand for this discrimination? Why does not the Interstate Commerce Commission protect the middle west as it should?—S. C. Masters, Russell Grain Co., Kansas City, Mo.

Farmers Apply for More Fertilizer and Seed

The Agricultural Adjustment Administration has announced that applications have been accepted for 62,716 tons of triple superphosphate fertilizer to be furnished farmers in Eastern and Southern States as grants of aid to be used in carrying out soil-building practices under the 1938 Farm Program.

Requests also have been received to date for 9,499 tons of lime and 270,000 pounds of winter legume seed to be used in carrying out soil-building practices.

Under the conservation phase of the Triple-A Program, the Secretary of Agriculture is authorized to promote soil conservation by making grants of aid to cooperating farmers. The cost of the materials furnished will be de-

ducted from payments which farmers would otherwise receive under the program.

Washington News

Washington officials say the Federal Surplus Commodities Corp., will buy several million bushels of corn this fall and winter to be processed into food for relief families. The corn is to be bought both in the open market and from the Commodity Credit Corp.

The Federal Surplus Commodities Corp. used \$1,000,000 in administrative costs and spent \$48,400,000 for purchases of 41 agricultural commodities during the fiscal year ended June 30, reports the A.A.A. Since the corporation was organized in 1933, \$277,000,000 have been spent in buying up agricultural surpluses.

Washington, D. C.—Amendments to the regulations of the Commodity Credit Corp., governing loans, have authorized cooperating wheat producers to withdraw high protein wheat or high quality durum wheat from storage under the 1938 wheat loan program, and sell it on the market, if the market is higher than the loan rate and the charges on the loan rate for the grain.

Country elevators with 50,000 bus. or more of storage capacity must be classified as sub-terminals in order to qualify as wheat loan storage warehouses and such elevators must be able to receive grain by rail, according to announcement by the Commodity Credit Corp. Inability to receive grain by rail automatically classifies an interior elevator as a country elevator. Applications to store wheat on which the government makes loans must be filed by the elevator with the Corporation's Washington office.

Kansas City, Mo.—O. J. Stevens, on leave of absence from the Uhlmann Grain Co., has been appointed to head the Kansas City office of the A.A.A. wheat and flour subsidy programs, and is expected to handle export wheat bids. A member of the Kansas City Board of Trade, Mr. Stevens has been associated with the Uhlmann Grain Co. for a year. Before that he was in charge of the Hutchinson office of the Farmers National Grain Corp., and previous to that connection he was associated with the Farmers Union Jobbing Ass'n.

Washington, D. C.—A shake-up in the Department of Agriculture followed the recent trip of Sec'y Henry Wallace thru the corn, wheat and cotton belts. H. R. Tolley has been removed from the post of A.A.A. administrator, and made chief of the Bureau of Agricultural Economics. R. M. Evans, assistant to Wallace, is the new administrator of the A.A.A. A. G. Black has been moved from the Bureau of Agricultural Economics to directorship of marketing and regulatory work. Consolidation of physical operations in land use programs has brought all of these under H. H. Bennett, chief of the Soil Conservation Service.

The underlying economic trend in the United States is still downward as it has been for the last ten years. Furthermore there is no prospect of a genuine recovery until a fundamental change has taken place in prevailing public attitude and public policies toward business enterprise.—Virgil Jordan, pres. National Industrial Conference Board.

Crop Reports

Reports on the acreage, condition and yield of grain and field seeds are always welcome.

Grandview, Ind.—A bumper corn crop is being harvested by the farmers of southern Spencer county. Some of the fields will average 100 bus. to the acre.—W. B. C.

Bluffton, Ind., Oct. 7.—Corn has matured early and is past the stage when frost will damage it. Quality is good, and moisture content less than a year ago.—A. F. McC.

Ashland, Ill., Oct. 4.—We have a large crop of good quality red clover; receive our first new corn testing No. 4 today. Yield will be much smaller than last year. Wheat is being sown and will have a smaller acreage than last year. Need rain.—Ashland Farmers Elvtr. Co.

Chicago, Ill., Oct. 4.—Reports on crop yields and conditions promise the following on Oct. 1: Corn, 2,440,000,000 bus.; oats, 1,010,000,000; spring wheat, 250,000,000; spring wheat in western Canada, 340,000,000. The grade of corn relative to crib-keeping qualities is inferior to last year's crop.—H. C. Donovan, statistician, Thomson & McKinnon.

Winchester, Ind., Oct. 1.—They are still threshing clover seed; and soy bean cutting and threshing is under way, and that crop won't be as large as anticipated but there will be plenty to go around, and we will probably have more bushels than we had in Indiana last year, as the acreage is large, and little cut for hay.—Goodrich Bros. Co., P. E. Goodrich, pres.

Kansas City, Mo., Oct. 1.—Average protein of 318 cars of wheat tested by the Kansas inspection department in the week ended Sept. 30 was 13.16 per cent, and 263 cars tested by Missouri averaged 12.95 per cent. The 581 cars tested by both departments had an average of 13.07 per cent, compared with 13.04 per cent on 499 cars the previous week and 12.89 per cent for 548 cars a year ago.

Chicago, Ill., Oct. 4.—The present estimate of spring wheat is 250,578,000 bus. Combining spring and winter wheat, the present estimate is 939 million bus. A preliminary estimate of the quality of this year's corn crop is nearly as high as last year's crop, which also averaged high. Our correspondents estimate that 88.7 per cent of the crop will be merchantable quality.—Nat C. Murray, statistician Clement, Curtis & Co.

Omaha, Neb., Sept. 29.—The corn crop shortage will curtail business for the elevators. Much wheat is being held back on the farms and in storage elevators. In some places the wheat is being held in stacks, which is the best place for it until it is sold. The September rains have put the soil in good condition for sowing wheat. The acreage will be reduced to some extent.—Nebraska Grain Dealers Ass'n, J. N. Campbell, sec'y.

Chicago, Ill., Oct. 6.—Dry weather is beginning to do damage to the newly-seeded winter wheat crop in the Southwest in places where the seed had barely sprouted when the top soil started to become dry. In the southern sections of the Texas panhandle and over southwestern Oklahoma, as well as adjoining parts of Texas, both surface and sub-moisture are badly needed.—H. C. Donovan, statistician, Thomson & McKinnon.

Winnipeg, Man.—We estimate the world's durum wheat production at 259,000,000 bus., and the consumption at 214,500,000, leaving a surplus of 44,500,000 bus. In addition to these crops there remains in the world visible about 25,000,000 bus. of durum wheat carried over from last season. From the point of view of world trade, however, only about ten million of this carry-over is important. This quantity remained in Canada, unsold at the close of the season 1937-38.—McCabe Bros. Grain Co.

Kansas City, Mo., Oct. 5.—We have computed final production for Kansas at 139,800,000 bus. So far, seeding is definitely much behind last year's planting. First, because of the government program. Second, because of the dry weather and soil condition. Third, because a large acreage has been left to volunteer wheat, which started out well, as a result of the August

moisture. It is significant, however, that only about one year in ten does volunteer wheat produce much of anything in Kansas, as it requires almost ideal weather conditions to bring it thru.—The Robinson Elvtr. Co., H. L. Robinson.

Minneapolis, Minn., Oct. 8.—We estimate that there have been shipped to market 5,400,000 bus. of this year's domestic flaxseed crop. This is about 68% of this year's crop, whereas last year on Oct. 1 there had only been marketed 56% of the crop. The main reason for this year's rapid rate of marketing is that flaxseed prices this fall have been very favorable compared with other grain prices and the flaxseed crop was accordingly rushed to market to take advantage of these favorable prices.—Archer-Daniels-Midland Co.

Winnipeg, Man., Oct. 4.—Absence of normal fall rains is beginning to worry farmers on the southern prairies of Canada and in the northwestern United States. During September, in Manitoba, less than a quarter of an inch of rainfall fell on the average at meteorological stations compared with 1.62 inches normal for that month. Across the border in southeastern Saskatchewan a similar record was made. At Estevan, for instance, only .20 inches of rain were received compared with 1.24 inches normal.—James Richardson & Sons, Ltd.

Chicago, Ill., Oct. 4.—Indicated production of corn is 2,467,485,000 bus. From central Ohio to Nebraska the crop is drier than at this time last year. A small per cent of the total acreage is still susceptible to freeze but the per cent is considerably smaller than average. Estimates of oats, barley and grain sorghum production are unchanged from those of Sept. 1, or 1,027,000,000, 244,000,000 and 113,458,000 (90% of the official August estimate) bus. respectively. Grain equivalent of Iowa's good production is included in the sorghums figure. Soybean production is estimated at 47,628,000 bus., of which the six leading states have 44,463,000. The six states produced 42,357,000 bus. in 1935.—R. O. Cromwell, statistician, Lamson Bros. & Co.

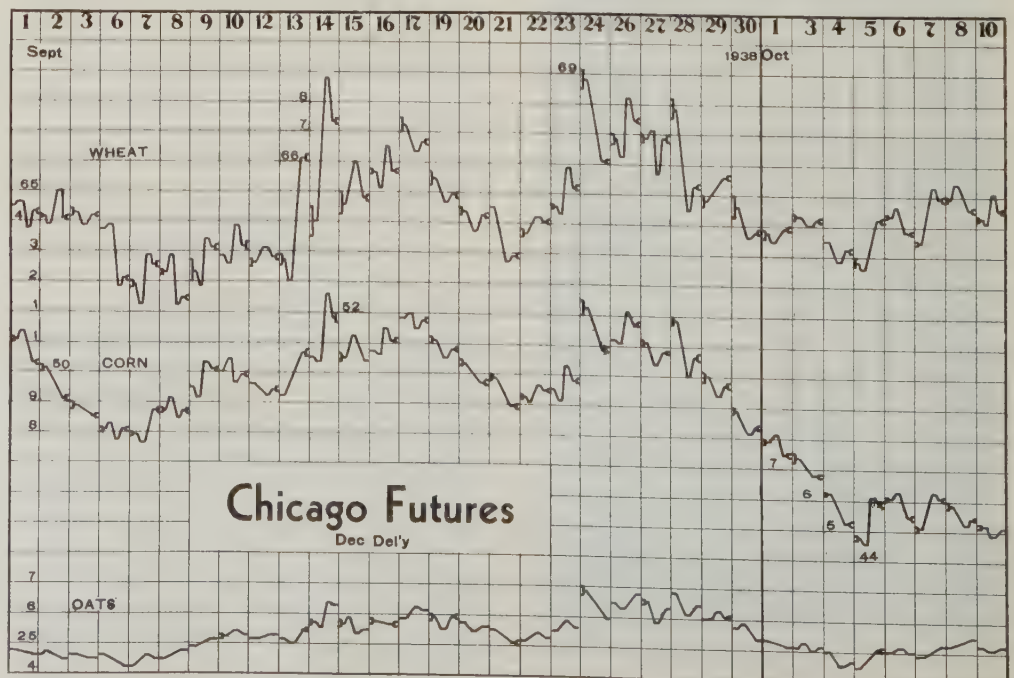
Winchester, Ind., Oct. 8.—We had our own managers into the home office all day yesterday, and the consensus of opinion of all but one of them (and he is in the far western corner of the state), was that our corn crop is not going to husk out as much as we expected in mid-summer. We have had a long continued drought, but the universal report was that hybrid corn would yield the most pounds per acre, more than the regular corn we have planted. Three of our houses reported that hybrid corn would not shell out as much to the bushel as other corn. Indiana ear corn usually over-runs at 70 lbs. to a bushel, and a good crop will shell out 57 to 59 lbs., and occasionally goes as high as 60 lbs. to the bushel. Our men estimated that the hybrid corn which was fertilized is going to yield more pounds per acre than the unfertilized, old-fashioned corn; whether it will weigh out that way or not, we don't know. Opinions were mixed as to whether hybrid corn will be used next year. The hybrid people are

putting on an extensive campaign in Indiana to sell farmers on the idea that hybrid corn is worth more for seed than it costs, stands up better, makes a better silo corn, and is better for all purposes, claiming it will husk out 10 bushels to the acre more.—Goodrich Bros. Co., R. E. Goodrich, pres.

Chicago, Ill., Oct. 3.—Corn crop shrinkage during September was due largely to unfavorable weather conditions and to appearance of bacterial disease in important areas affecting stalks and interfering with ear filling and development. Frost held off and furnished general opportunity for ripening so that the amount of soft corn will be limited, but scattered dry areas have a decreased size of ears and weight of kernels so that quality of grain will not equal last year. Final spring wheat threshing results fully confirm early reports and indicate a further shrinkage in crop volume of some 20 million bus. A striking feature of reports is the frequent declaration that the loss from grasshopper visitation has proven greater than that from the rust experience. Another is the frequent assertion that Thatcher wheat generally lived up to its reputation as rust-resistant.—B. W. Snow, statistician, Bartlett-Frazier Co.

Decatur, Ill., Oct. 8.—Favorable weather for maturing the corn crop. Prospects are for average quality, although there will be some chaffy corn in the central and southern sections due to insects, diseases, and August drouth and heat. Reports continue to verify the irregularity of yields. Illinois will not begin to harvest the bumper crop we had last year. Considerable husking has been done in some southern counties and with continued good weather will soon be under way in volume in the central section. No disposition on the part of growers to sell new crop corn at prevailing low prices. From all indications now, unless the price advances, growers will arrange to find a place on the farms for their new corn. Farmers not eligible for a loan on their old corn have moved it liberally the past week, with the domestic and export demand not broad enough to absorb the offerings.—Baldwin Elevator Co.

Springfield, Ill., Oct. 5.—Weather conditions were most favorable for rapid maturing of crops and progress of fall work, except that it was too dry in many areas for plowing and in places for sprouting of winter wheat. Corn generally continued average to very good, approximately 93 per cent of the crop is now safe from frost, and the ears are drying out rapidly; silo filling is practically completed; picking has started, but mainly thus far for feed. Seeding of winter wheat varies from well advanced to just started, a considerable amount having been seeded in advance of the fly-free date; in places the earliest has a growth of two inches, and that which is up, generally shows a good stand. Soybeans, likewise, are average to very good generally and well podded; considerable has been cut for hay, and combining has started. Alfalfa and clover mostly continue good.—E. W. Holcomb, U. S. Dept. of Agriculture.



October Forecasts

Chicago, Ill., Oct. 1.—Private crop statisticians, B. W. Snow of Bartlett-Frazier Co., Nat C. Murray of Clement, Curtis & Co., H. C. Donovan of Thomson & McKinnon, R. O. Cromwell of Lamson Bros. & Co., and C. M. Galvin of James E. Bennett & Co., give the following indicated production of leading grains, in millions of bushels, as based on conditions about Oct. 1:

	Corn	Spring Wheat	Oats
Snow	2,426	233	1,022
Murray	2,466	251	1,024
Donovan	2,440	250	1,010
Cromwell	2,467	253	1,027
Galvin	2,421	246	1,018

Government Crop Report

Washington, D. C., Oct. 10.—Official Oct. 1 estimates by the Crop Reporting Board place the current corn crop at 2,459,000,000 bus., showing little change from the Sept. 1 estimate of 2,455,000,000 bus., tho it is 186,000,000 bus. less than a year ago.

THE 1938 AVERAGE yield per acre is placed at 26.7 bus., compared with 26.6 bus. estimated on Sept. 1, 28.2 bus. produced in 1937, and 22.9 bus. for the 10-year (1927-36) average. Yields are above average in corn belt states, except in South Dakota and Nebraska, where hot, dry weather, and grasshoppers adversely affected the prospects. The figures represent all corn to be harvested for all purposes, including grain, silage, hogging, and grazing. Hybrid corn again shows a substantial increase over last year in the corn acreage.

The indicated yield of corn in leading states, in thousands (i.e., 000 omitted) of bushels, is:

	Oct. 1	Sept. 1	Final, 1937
Ohio	153,648	153,648	163,228
Indiana	163,904	163,904	211,770
Illinois	361,673	361,673	444,197
Iowa	442,917	437,826	503,505
Minnesota	151,402	151,402	172,368
Missouri	102,900	105,000	115,020
Nebraska	97,812	97,812	82,992
Kansas	47,139	47,139	28,244
Oklahoma	33,208	33,208	30,960
Texas	82,740	80,372	72,048
Wisconsin	87,912	83,160	76,356
South Dakota	33,720	32,034	44,170

PRELIMINARY estimates place wheat production at 940,229,000 bus., divided into 688,458,000 bus. winter, and 251,771,000 bus. spring, the largest crop since 1919, and the third largest on record. These estimates compare with 873,993,000 bus. harvested last year, and a 10-year average of 752,891,000 bus. Preliminary estimates place spring wheat production, other than durum, at 210,161,000 bus., showing little change from the 209,503,000 bus. predicted on Sept. 1. This compares with 161,100,000 bus. produced in 1937, and a 10-year average of 166,410,000.

Yield per acre is placed at 11.9 bus., compared with 10.9 bus. in 1937, and 11.3 bus. for the 10-year average.

Durum

THE OCT. 1 durum wheat promise of 41,610,000 bus. is slightly below the Sept. 1 promise of 42,011,000 bus., the decrease occurring in South Dakota. The 10-year average production

of durum is 40,085,000 bus. Average yield per acre is placed at 11.9 bus., compared with 10.1 bus. a year ago and 9.8 bus. for the 10-year average.

The soybean condition is 84%, compared with 87% a month ago, and 81% a year ago.

Farm Stocks

CORN stocks on farms on Oct. 1 are placed at 15% of last year's crop, or 352,000,000 bus.; compared with only 61,000,000 bus. a year ago, and a 10-year average of 180,000,000, normally equalling 8.6% of the preceding crop.

WHEAT on farms is placed at 407,000,000 bus., the largest volume since 1932, and comparing with 327,000,000 bus. a year ago, and a 10-year average of 345,000,000.

OAT stocks are estimated at 845,000,000 bus., compared with 905,000,000 bus. a year ago, and a 10-year average of 826,000,000. This stock represents 81.1% of the crop, compared with 78.9% a year ago, and a 10-year average of 79.9.

Wheat Movement in September

Receipts and shipments of wheat at the various markets during September, compared with September, 1937, in bushels, were:

	Receipts		Shipments	
	1938	1937	1938	1937
Baltimore	136,388	240,997	.....	.....
Chicago	1,651,000	3,577,000	2,046,000	2,704,000
Duluth	13,621,344	9,919,293	8,723,137	4,001,937
Ft. Wm.	41,524,295	28,069,924	31,042,008	15,243,637
Ft. Worth	807,800	498,400	1,307,600	1,495,200
Galveston	1,486,500	1,263,000	763,461	1,394,666
Hutchinson	1,324,400	693,000	.....	.....
Indianapolis	253,000	132,000	133,000	168,000
Kan. Cy.	4,260,800	4,601,600	3,151,910	5,022,085
Milwaukee	256,822	220,220	401,392	518,419
Min'polis	11,914,890	10,872,930	3,720,140	2,601,930
N. Orleans	.....	.....	689,700	263,900
Omaha	1,802,269	710,453	1,299,216	1,446,225
Peoria	78,000	88,800	133,600	175,200
Philad'phia	167,532	352,139	207,517	55,356
St. Joseph	492,800	523,200	584,000	964,800
St. Louis	1,252,500	1,508,900	1,587,295	1,145,000
Superior	7,210,138	5,118,774	3,650,090	1,960,972
Toledo	786,095	575,440	174,855	142,610
Wichita	1,239,000	975,000	837,000	504,000

Barley Movement in September

Receipts and shipments of barley at the various markets during September, compared with September, 1937, in bushels, were:

	Receipts		Shipments	
	1938	1937	1938	1937
Baltimore	4,286	4,652	.....	.....
Chicago	1,399,000	1,479,000	230,000	179,000
Duluth	2,381,302	3,740,210	2,237,968	2,818,141
Ft. William	4,844,172	7,210,073	4,437,667	3,485,149
Ft. Worth	1,600	1,600	1,600	.....
Indianapolis	.....	3,000	3,000	.....
Kansas City	78,400	33,600	6,400	9,600
Milwaukee	3,971,841	2,581,720	883,298	731,975
Minneapolis	4,511,820	4,946,800	3,257,540	2,961,810
Omaha	108,800	78,400	144,000	53,766
Peoria	303,400	232,400	132,700	155,400
Philadelphia	1,492	2,496	933	.....
St. Joseph	1,750	1,750	8,750	1,750
St. Louis	116,800	227,200	22,300	11,200
Superior	1,641,718	1,567,504	1,806,333	837,329
Toledo	2,800	9,800	33,980	.....

Daily Closing Prices

The daily closing prices for wheat, corn, oats, rye, barley and soybeans for December delivery at the following markets for the past two weeks have been as follows:

	Option		Sept. 28	Sept. 29	Sept. 30	Oct. 1	Oct. 2	Oct. 3	Oct. 4	Oct. 5	Oct. 6	Oct. 7	Oct. 8	Oct. 9	Oct. 10	Oct. 11
Chicago	High	Low	65 1/4	65 1/2	63 3/4	63 3/4	64 1/4	63 1/4	63 1/4	64 1/4	63 3/4	64 1/4	64 1/4	64 1/4	64 1/4	64 1/4
Winnipeg	84 1/4	61 1/4	65 1/4	65 1/2	63 3/4	63 3/4	64 1/4	63 1/4	63 1/4	64 1/4	63 3/4	64 1/4	64 1/4	64 1/4	64 1/4	64 1/4
Liverpool*	87	56 1/2	63 3/4	62 3/4	60 1/4	59 1/4	59 3/4	58 1/4	59 1/4	58 3/4	59 3/4	59 1/4	59 1/4	59 1/4	59 1/4	59 1/4
Kansas City	88 3/4	66 1/2	76 3/4	72	70 3/4	69 1/4	70 1/4	68 3/4	67 3/4	68 3/4	67 1/4	67 1/4	66 3/4	66 3/4	66 3/4	66 3/4
Minneapolis	81 3/4	57 1/2	61 3/4	61 3/4	60 1/4	59 3/4	59 3/4	58 3/4	59 3/4	59 3/4	60 3/4	60 3/4	60 1/4	60 1/4	60 1/4	60 1/4
Duluth	89 1/4	62 3/4	67	67 1/2	65 3/4	65 3/4	65 3/4	64 3/4	65 3/4	65 3/4	66 1/4	65 3/4	65 3/4	65 3/4	65 3/4	65 3/4
Milwaukee	84	61 3/4	65 1/4	65 1/2	63 3/4	63 3/4	64 1/4	63 1/4	63 1/4	64 1/4	63 3/4	64 1/4	64 1/4	64 1/4	64 1/4	64 1/4
Chicago	63 3/4	44 3/4	50 1/2	49 3/4	48 1/4	47 3/4	46 3/4	45 3/4	45 3/4	46 3/4	45 3/4	45 3/4	45 3/4	45 3/4	45 3/4	45 3/4
Kansas City	59 3/4	41 3/4	47 1/4	47	45 3/4	44 3/4	44	42 3/4	43 3/4	42 3/4	43 3/4	42 3/4	42 3/4	42 3/4	42 3/4	42 3/4
Milwaukee	63	.....	50 1/2	49 3/4	48 1/4	47 3/4	46 3/4	45 3/4	46 3/4	45 3/4	45 3/4	45 3/4	45 3/4	45 3/4	45 3/4	45 3/4
Chicago	28 1/2	23	26 3/4	26	25 3/4	25 1/2	24 3/4	25	25	25 1/2	25 1/2	25 1/2	25 1/2	25 1/2	25 1/2	25 1/2
Winnipeg	36 1/4	25 3/4	28 3/4	28 1/4	27 1/4	26 3/4	27	26 3/4	27	27 1/4	28 1/4	27 3/4	27 3/4	27 3/4	27 3/4	27 3/4
Minneapolis	25 1/4	20 1/2	23 3/4	23 3/4	22 3/4	22 1/2	22	22 1/2	22 1/2	22 3/4	22 3/4	22 3/4	22 3/4	22 3/4	22 3/4	22 3/4
Milwaukee	28 3/4	23 1/4	26 3/4	26 1/4	25 1/2	25 1/2	25 1/2	24 3/4	25	25 1/2	25 1/2	25 1/2	25 1/2	25 1/2	25 1/2	25 1/2
Chicago	56	39 3/4	45 1/4	44 3/4	43 1/4	43 1/4	42 3/4	43 1/4	43	43 3/4	43	43 3/4	43 3/4	43 3/4	43 3/4	43 3/4
Minneapolis	45 3/4	34 3/4	40	39 3/4	38 3/4	38 3/4	38	37	37 3/4	37 3/4	38 3/4	37 3/4	37 3/4	37 3/4	37 3/4	37 3/4
Winnipeg	55 1/2	37	42 1/4	43	41 3/4	40	40	39 3/4	41 1/4	41 3/4	42 1/4	41 3/4	41 3/4	41 3/4	41 3/4	41 3/4
Duluth	39	42	41 3/4	40 1/4	40 1/4	40 1/4	40 1/4	40 1/4	40 1/4	40 1/4	41 1/4	41 1/4	41 1/4	41 1/4	41 1/4	41 1/4
Chicago	39 1/2	30 3/4	34 3/4	35 1/2	33 3/4	32 3/4	32 3/4	31 3/4	32 3/4	32 3/4	32 3/4	32 3/4	32 3/4	32 3/4	32 3/4	32 3/4
Winnipeg	40 3/4	33 3/4	37 3/4	37 3/4	35 1/2	33 3/4	33 3/4	34 3/4	34	34 3/4	35	35 3/4	36 1/4	36 1/4	35 3/4	35 3/4
Chicago	85 1/2	72 1/2	76 3/4	77 3/4	75 3/4	75 1/2	74 3/4	73	74	74 1/2	74 1/2	74 1/2	74 1/2	74 1/2	72 1/2	72 1/2

*At daily current rate of exchange.

Grain Movement

Reports on the movement of grain from farm to country elevator and movement from interior points are always welcome.

Kansas City, Mo., Oct. 5.—A study of the entire situation indicates 20 to 25 per cent of the 1938 crop remaining on farms, which is, and will be, firmly held, in our opinion, unless prices advance considerably, and because in certain sections considerable is already on a government loan.—Robinson Elvtr. Co., H. L. Robinson.

Calgary, Alta., Oct. 4.—An embargo, following record shipments during September has been placed on incoming shipments from country points to the terminals. 17,000,000 bus. of grain,

Oats Movement in September

Receipts and shipments of oats at the various markets during September, compared with September, 1937, in bushels, were:

	Receipts		Shipments	
	1938	1937	1938	1937
Baltimore	80,433	57,753	.....	.....
Boston	5,600	22,400	.....	.....
Chicago	1,953,000	3,460,000	2,208,000	2,608,000
Duluth	3,069,993	3,171,774	1,626,260	901,546
Ft. Wm.	1,289,165	1,438,682	883,568	943,181
Ft. Worth	86,000	62,000	28,000	14,000
Hutchinson	.....	2,000	.....	.....
Indianapolis	800,000	956,000	528,000	830,000
Kan. City	254,000	386,000	194,000	306,000
Milwaukee	58,760	196,620	68,400	60,800
Minneapolis	1,899,260	3,886,170	1,183,900	599,460
New Orleans	.....	.....	41,901	497
Omaha	430,323	312,000	398,450	507,505
Peoria	194,000	409,000	262,700	475,000
Philadelphia	63,063	36,069	42,804	.....
St. Joseph	360,000	93,000	206,000	90,000
St. Louis	328,000	344,000	302,000	338,000
Superior	2,296,734	1,036,576	471,714	126,000
Toledo	931,860	184,800	824,620	231,810
Wichita	.....	1,500	.....	.....

Rye Movement in September

Receipts and shipments of rye at the various markets during September, compared with September, 1937, in bushels, were:

	Receipts		Shipments	
	1938	1937	1938	1937
Baltimore	71,784	134,560	.....	.....
Boston	1,100	600	.....	.....
Chicago	596,000	1,096,000	149,000	331,000
Duluth	1,769,611	2,503,561	1,398,246	2,120,514
Ft. William	343,838	363,328	190,445	46,909
Ft. Worth	.....	3,000	.....	.....
Galveston	18,000	.....	.....	.....
Hutchinson	.....	1,500	.....	.....
Indianapolis	70,500	34,500	43,500	36,000
Kan. City	55,500	45,000	22,500	15,000
Milwaukee	11,320	193,855	15,060	180,720
Minneapolis	1,095,350	913,470	255,130	957,730
Omaha	61,600	85,034	162,400	63,000
Peoria	91,200	180,000	2,400	45,600
Philadelphia	3,056	2,438	3,792	.....
St. Joseph	1,500	1,500	12,000	12,000
St. Louis	66,000	28,500	37,500	51,000
Superior	1,382,718	1,302,570	1,373,119	1,383,938
Toledo	30,800	82,600	12,205	23,460
Wichita	.....	1,300	.....	.....

Air Tank Explosions Wreck Elevators

By C. M. PARK, Engineer Mutual Fire Prevention Bureau

transported in 10,000 cars and valued at \$9,600,-000, were moved through Calgary during September. This was a new record, establishing an all-time high since the grain inspection service was established here some 40 years ago.

Melcher, Ia.—Leavengood Bros. are now storing grain in their local elevator instead of shipping it, as they have been doing all summer and fall. The structure contains eight bins and holds 13,000 bus. of grain.

Kansas City, Mo., Oct. 8.—The first car of red kafir from the 1938 crop was received here today, consigned from Humboldt, Neb. The car graded No. 1 and tested 60 lbs., 10.7% moisture. A car of new No. 1 white kafir from Olpe, Kas., was also received. It tested 58.5 lbs., 12.2% moisture.

Chicago, Ill.—According to records compiled by Lyman C. West, statistician of the Board of Trade, receipts of corn since Jan. 1 in Chicago exceed 98 million bushels, far more than any other terminal market. With more than two months of the calendar year remaining, during which new crop corn will begin to move from the fertile Mississippi Valley region, total receipts of well above 100 million bus. at Chicago are assured. Shipments of corn from Chicago this year have kept pace with receipts, with much of the grain leaving here destined for foreign consumption. Total shipments so far are in excess of 75 million bushels. Of this amount the greatest share, 60,648,000 bus., has moved from Chicago by water since lake navigation was opened last April.

Duluth, Minn.—Grain receipts in this market are slowing down. The September arrivals fell 8,500,000 bus. under August with still a noticeable shading already shown for the current month. The amount taken in on the crop, Aug. 1 to Oct. 7, this year runs far ahead of the corresponding period last year. Total for the present crop has reached 55,213,000 bus. as against 37,340,000 bus. in the previous year. Shipments this season also far exceed the 1937 crop movement, running 29,780,000 bus. as against 17,294,000 bus. a year ago. Boat chartering to carry grain east via the water route remains slow and in light volume. Freighters are readily available for cargoes at the market rate 2½c, a dip from 2½c recently quoted. Several winter storage wheat cargoes have already been loaded and departed for Buffalo.—F. G. C.

Ottawa, Ont., Oct. 6.—Canadian wheat in store for the week ending Sept. 30, 1938, increased 21,-884,399 bus. compared with the preceding week and increased 78,661,306 bus. when compared with the corresponding week in 1937. The amount in store was reported as 133,470,967 bus. compared with 131,586,568 bus. for the preceding week and 74,809,661 bus. for the week ending Oct. 1, 1937. Wheat receipts in the Prairie Provinces for the week ending Sept. 30, 1938, amounted to 28,698,617 bus., a decrease of 3,-091,306 bus. over the preceding week when 31,789,923 bus. were marketed. During the corresponding week a year ago the receipts were 6,544,558 bus. Marketings in the three Prairie Provinces for the nine weeks from Aug. 1, 1938, to Sept. 30, 1938, as compared with the same period in 1937 were as follows, figures within brackets being those for 1937: Manitoba, 36,107,-857 (28,025,937); Saskatchewan, 62,542,591 (13,-729,809); Alberta, 59,401,799 (23,822,012) bus. For the nine weeks ending Sept. 30, 1938, and the same period in 1937, 158,052,247 and 65,577,758 bus. respectively were received from the farms.—R. H. Coats, Dominion Statistician.

Argentine Flax Exports

Argentina's National Grain & Elevator Board reports the export movement of the 1937 Argentine flax crop as 72,303,000 bushels, or 94.88 per cent of the 76,201,000 bushel crop. This volume is well above normal. Of the total 62.82 per cent was shipped in bags, bulk movement of flax seed being confined to the United States and Canada where unloading facilities are available.

The United States was the biggest single buyer of Argentine flax of 1937 crop, taking 25,563,000 bushels, a record for any country in any year. Holland ranked second with 14,008,000 bushels; France, third with 9,325,000 and Canada fourth with 4,548,000.

From 30 per cent to 40 per cent of the total export shipments were consigned for orders,

Every once in a while, we get a report of another air tank explosion in a mill or elevator with a story of walls and roofs that were blown out and buildings that were wrecked, and of narrow escapes from serious injury to plant employees. Many of us, perhaps, are inclined to shrug our shoulders and remark that there is another case of a safety valve that failed to work or an air tank that was weakened by rust, and that the operators should take more pains to determine the condition of air tanks and safety valves. Maybe that is true, but let's have a look at the facts.

Take a compressor with 3½ inch bore and a 4½ inch stroke turning over at 600 RPM. Such a compressor, if of the air cooled single-stage type, will require 3 HP. to compress 16 cubic feet of air per minute to a pressure of 100 pounds. If the safety valve sticks and the pressure starts going up, the horsepower required will increase. At 200 pounds, about 4.06 HP. will be required, and at 300 pounds, the horsepower requirement will be about 5.1. At 200 pounds, the motor will be 35 per cent overloaded, and at 300 pounds, it will be 70 per cent overloaded. It would seem, therefore, that the motor overload protective device would establish a limit to the maximum pressure that could be reached, and careful attention on the part of the operators to the setting and condition of the overload relays will do a great deal to reduce air tank ruptures from simple excess pressures regardless of the condition of the safety valves.

A second point to consider is the possibility of rupture as the result of corrosion or rusting of the tank. This is a definite possibility whenever the equipment has been in use for some time, and where the water of condensation has not been drained out regularly. However, a residual wall thickness of .023 inch is sufficient to hold 150 pounds pressure in a tank 18 in. in diameter, and a thickness of .045 inch will hold 300 pounds. In a tank of 24 inches diameter, the minimum wall thickness would be .03 for 150 pounds and .06 for 300 pounds. It will be seen that the tank wall will have to get pretty thin before it will burst from pressures that would not cause the operation of the motor overload relays.

Now suppose the tank should burst under a pressure of 300 pounds. This is a pressure ratio of about 20 to 1 when compared with the normal pressure of the atmosphere. In a room 20x20x8 the volume is 25,600 cubic feet, and if we assume that the air tank is 18x72 inches, which is a fairly large size, the total volume of the air liberated by the bursting of the tank would be about 376 cubic feet. This would amount to 1.4 per cent of the volume of the room, and if no air leaked out, would result in a pressure of .152 pounds per square inch inside of the room, which is equal to about 22 pounds per square foot. This would amount to a total pressure of about 500 pounds against a standard size door, and is about equal to the wind pressure per square foot on the wind shield of your car at a speed of 75 miles per hour. It seems hardly probable that the rupture of such a tank in a room of that size would blow out the walls or blow away the roof.

In a room 10x10x10, however, the rupture of such a tank would produce a pressure of about 800 pounds per square foot which would be quite likely to cause serious structural damage. It follows that the possibility of damage from the rupture of an air compressor tank is relatively slight unless the tank is located in a tightly closed room of small dimensions, and it would appear advisable to locate such tanks where there is considerable free space.

It is obvious that excessive pressure and corroded air tanks may cause mechanical rup-

ture or explosion of the tanks, and that such ruptures may cause considerable damage under certain circumstances. However, it is also obvious that the amount of energy released by the bursting of a tank is limited and the fact must be faced that the destructive forces evident in some of our bad air tank explosions are enormously greater than can be accounted for by the energy of the compressed air in the tank. It is desirable, therefore, to look a little further into the behavior of air during compression.

Heat is generated when air is compressed, and it is a provable fact that the amount of heat energy generated is equivalent to the mechanical energy required for compression. In the Diesel engine, for example, the heat of compression is depended on to ignite the fuel charge in the cylinder. In a water-cooled compressor, a considerable part of the heat of compression is carried away in the cooling water, and the final temperature of the compressed air as discharged from the compressor is somewhat reduced as a consequence.

In the usual type of single-stage air-cooled compressor, however, the temperature of the exhaust air will be high, and if the cooling fins on the compressor cylinder are allowed to accumulate a layer of dirt, the exhaust temperatures will be even higher. The exhaust temperature also goes up as the exhaust pressure is increased, and if the output pressure exceeds a certain value, the temperature of the air may be high enough to ignite the vaporized lubricating oil always present in the exhaust of a compressor. The following table gives some idea of the temperatures reached in single-stage compressors under different conditions.

Output Pressure	Exhaust Air Temperature (F.)	Water-Cooled	Air-Cooled	Air-Cooled
Lbs.	Cooled	Clean	Dirty	
50	290	305	350	
75	365	390	420	
100	430	460	495	
150	520	560	610	
200	595	665	700	
300	710	770	845	
500	870	950	1070	

The temperatures in the table are based on a room temperature of 80 degrees. If the room temperature is 100 degrees, the final temperatures of the compressed air will be about 3½ per cent higher.

Some lubricating oil vapor is mixed with the air exhausted from any compressor, and the greater the amount of wear in the compressor, the greater will be the amount of oil in the air. Also, it is generally known that lubricating oil cracks up and forms carbon and sludge at high temperatures, and that the poorer the grade of the oil the lower will be the temperature at which this cracking will occur. The presence of carbon particles in the oil spray tends to lower its ignition temperature, and the presence of combustible dust particles has the same effect. In fact, it has been shown that grain dust particles will ignite at about 500 degrees, and with a dirty compressor operating at 100 pounds pressure on a hot summer day, this temperature might easily be reached.

It becomes obvious that the operation of a single-stage air-cooled compressor in a grain handling plant is definitely dangerous if the output pressure equals or exceeds 100 pounds. Because of this danger, the regulations of The Mill Mutual Insurance Companies for the installation of air compressors specifically require that the compressor be of the two-stage type if the output pressure exceeds 80 pounds. The exhaust temperature of a two-stage compressor with the usual type of intercooler will be less than 350 degrees at 150 pounds output pressure even if the compressor

is dirty and the room temperature is 100. A further advantage of the two-stage compressor is that it takes from 10 to 15 per cent less than a single-stage compressor of the same rating.

It does not take a great deal of imagination to picture what may happen when a tank is filled with a mixture of oil vapor and air under high pressure, and that mixture is ignited. The amount of energy released by the resulting explosion may be enormous and may easily be sufficient to wreck the building in which the compressor and air tank are located. It is the explosion of this type, rather than the simple rupture of an air tank, which is responsible for the extremely heavy damage frequently associated with air tank explosions. Certainly no elevator operator can feel safe with such potential dynamite in his plant.

To reduce the probability of air tank explosions a single-stage air-cooled compressor should never be installed if an output pressure of more than 80 pounds is needed. If higher pressures are required, a two-stage compressor with an intercooler should be used, and such a compressor will have the added advantage of using less power than would be required for a single-stage compressor.

In the second place, the compressor and its piping should be so installed that the air discharge pipe will slope away from the compressor. This will permit the oil to drain away from the high temperature area at the compressor exhaust port and will reduce the rate of breakdown and carbon formation in the oil. If the discharge piping cannot be arranged to slope all the way to the air tank, a trap equipped with a suitable drain valve should be placed at the lowest point. There should also be a suitable drain at the lowest point in the air tank whether the discharge line drains into the tank or not, and accumulations of oil and water in the tank should be blown out at regular intervals.

Locate the compressor in a clean place, and the radiating fins on the compressor cylinders and on the intercooler should be kept clean. This will reduce the operating temperature of the compressor, and will reduce the temperature of the air discharged, thus reducing the probability of ignition. It is particularly important that the air intake to the compressor be equipped with an efficient filter or extended to a location where the intake air will be clean. The presence of grain dust in the compressed air will seriously lower the ignition temperature.

The safety valve on the air tank should be tested frequently to make sure it is in good

condition, and the overload relays protecting the compressor motor should be set as low as possible to guard against the possibility of excessive pressure in the air tank. Such excessive pressure may rupture the tank, which would be bad enough, but it also results in a dangerous increase in the exhaust temperature of the air from the compressor and may easily result in exhaust temperatures which will ignite the oil vapor in the tank. Regular testing of the safety valve and examination of the overload relays is particularly important in the case of single-stage compressors where a relatively small increase in pressure may result in dangerous temperatures.

A high grade lubricating oil especially designed for operation at high temperatures should be used in the compressor. The use of a high grade oil with a high breakdown temperature will reduce the amount of oil leaving the compressor with the air, and will reduce the formation of carbon and sludge in the oil that does get by. In addition, the compressor should be taken apart and thoroughly cleaned at least twice each year and the cleaning should include the air discharge line and the air tank. Worn piston rings should be replaced and leaky exhaust valves replaced or repaired.

Test tanks periodically with a pressure equal to at least twice the normal operating pressure. Such a test should never be made by pumping up the air to the required pressure since the failure of the tank under such conditions would involve the same probability of damage as any rupture due to excess air pressure. The test should properly be made by filling the tank entirely full of water and pumping up the pressure with a small hydraulic test pump.

If the foregoing precautions are taken, the operation of a compressed air system will not introduce any serious hazard to life or property, but disregard for any of these precautions may result in a bad explosion with serious damage to the property and the danger of injury or death to anyone who may be in the vicinity.

It doesn't require any great amount of foresight to fear that the purchasing of wheat at the low values will soon result in a great accumulation of wheat in government hands, similar to the situation in Farm Board days. This despite solemn protestations from time to time the past few years by the President and by the Secretary of Agriculture that any such program is unsound and not to be countenanced.—*The Hook-U'p*.

Price-Fixing Threatened

Geo. H. Davis, pres. of the Chamber of Commerce of the United States, speaking at a luncheon in New York Sept. 21 warned that present administration methods lead in the direction of price fixing of all commodities, regimentation and, ultimately, the loss of personal liberty of every citizen.

"Our problem, after nine years, is becoming acute, with the number of businessmen who work at their own risk and workers who seek work on their own responsibility steadily declining." He charged that the exceedingly high rate of taxes has reduced the number of businessmen who will go into new enterprises.

"Popular polls and other tests of public sentiment register an unmistakable shift. Extreme pronouncements from Washington meet with a rising skepticism that has put the political 'rain-makers' on the defense. Friends of business, sensing that they are not an ostracized minority, are recovering their voices. A beginning has been made. The movement has gained definite momentum. What has been accomplished points the way to further accomplishment."

California Fair Trade Law Valid

The Supreme Court of California has held valid the loss leader law as amended in 1937 forbidding sales below cost, in the suit by the Wholesale Tobacco Dealers Buro of Southern California v. National Candy & Tobacco Co.

Defendant admitted selling below invoice cost or replacement cost, discrimination in price between different sections, and giving secret rebates to some.

Defendant contended that one of a citizen's inherent rights is to contract for the sale of merchandise which he owns, on any basis he chooses, without interference from the government; that to make him sell at prices he did not choose to sell at is "price fixing" and an invasion of his right to contract freely, thus interfering with his freedom of action and freedom of contract.

The court said "it has become a well-established principle that the legislature's right to exercise its police power is no longer limited to the field of health and safety of the citizen as was for a long time held; but now extends by universal admission into many other fields of endeavor, including the preservation and promotion of the public welfare . . ."

"... the police power (of the state) has not expanded . . . proper exercise has been and still is confined to regulation in the public welfare . . ." but . . . "the test in present day conditions—the proper application of power (to regulate) cannot be measured by past precedents . . . changed social, political and economic conditions have enlarged the field of conduct which may be properly subjected to regulation in order that the general welfare may be adequately protected . . ."

California Bulk Storage

The dry and sunny climate of California makes possible departures from the standard designs for elevator construction in the eastern and northern states.

At Tyndall Mound, Cal., are two rows of galvanized steel tanks used by a company operating 30,000 acres of farm lands to store its crops, reached by a 15-mile spur built expressly by the Southern Pacific from Knight's landing.

A work house at one end elevates the grain to the cupola where it is cleaned and moved thru a conveyor gallery extending out over the tanks. Underneath is a concrete tunnel, 6 by 6 ft., with a conveyor to draw grain from the tanks for shipment in bulk.

Jacob Hartz was elected vice-pres. of the American Soybean Ass'n at the annual convention held at Columbus, O. The meeting next year will be at Madison, Wis.—P.J.P.



Galvanized Steel Grain Tanks Used in California.

The Wage and Hour Law

A flock of interpretations and regulations may be expected from Washington soon after the Fair Labor Standards Act goes into effect Oct. 24.

The important question with each employer is how, if at all, his business will be affected, and this is not easy to answer, since both the method of doing business and the materials handled locally or interstate, are involved.

According to the Bureau of Labor Statistics of the Department of Labor its application is as follows, stated in question and answer form:

Who is Covered? What groups of workers are covered by the law? Workers employed in industries engaged in interstate commerce or in manufacture of goods shipped in interstate commerce. What employes are exempt? (a) Executives, administrators, professionals, outside salesmen, and employees in retail and service establishments the greater part of whose business is within the state. (b) Seamen, and employees of air transport lines, suburban or interurban trolleys, and local trolley or motorbus carriers. (c) Farm workers and those employed in fishery industries. (d) Employees of weekly or semi-weekly country newspapers with a circulation of less than 3,000. (e) Workers who are personally engaged (within the area of production of the raw material) in handling, packing, storing, ginning, compressing, pasteurizing, drying, preparing in a raw or natural state, or canning any agricultural commodity for marketing, or in making cheese or butter.

Maximum-Hour Provisions—What are the maximum-hour provisions? 44 hours the first year, 42 the second and 40 afterwards.

Is overtime work permitted? Yes, if workers are paid $1\frac{1}{2}$ times their regular rate for all overtime.

Are any industries exempt from paying overtime? Yes. (a) An employer and the representatives of his workers who are certified as bona fide by the National Labor Relations Board may arrange the working schedule without regard to the law, provided that no worker shall be employed more than 1,000 hours in any twenty-six consecutive weeks, or 2,000 hours in any fifty-two consecutive weeks. However, work in excess of twelve hours a day and fifty-six hours a week must be compensated at the rate of time and a half. (b) In industries designated by the administrator as seasonal, workers may be employed twelve hours a day or fifty-six hours a week for not more than fourteen weeks in any calendar year. (c) Employers engaged in the "first processing" of milk, whey, skimmed milk, or cream into dairy products, in ginning and compressing cotton, in processing cottonseed, and in processing sugar beets, sugar cane, or maple sap into raw sugar or into syrup, are exempt from the maximum-hour provisions; this exemption applies to all employes wherever such work is done. (d) Railway and motor bus and truck carriers regulated by the Interstate Commerce Commission are also exempt. (e) Employers engaged in the first processing of or in canning perishable fresh fruits or perishable or seasonal fresh vegetables, or in the first processing within the area of production of any agricultural or horticultural commodity during seasonal operations, and employers engaged in handling, slaughtering, or dressing poultry or livestock are exempt from the maximum-hour provisions for fourteen weeks during a calendar year, this exemption applying to all employes in the place where such work is done.

Minimum-Hour Wage Provisions—What are the minimum wages provided by the law? After Oct. 24, 25 cents, or the rates fixed by the administrator, whichever is the higher. After Oct. 24, 1939 30 cents, or the rate fixed by the administrator. After Oct. 24, 1945, 40 cents, unless it can be shown that such rate would substantially curtail employment.

Can the administrator establish a minimum of more than 40 cents? No.

Must workers in all industries wait seven years for the highest minimum wage? No, the administrator must establish as quickly as feasible the highest minimum wage possible.

What procedure must be followed? The administrator must appoint for each industry a committee consisting of an equal number of representatives of employers, workers, and the public. The committee must recommend the highest minimum possible.

Can an industry committee recommend different minimum wage rates within an industry? Yes. No rates can be fixed solely on a regional basis or on the basis of age or sex of employes. Among factors to be considered are: (a) competitive conditions as affected by transportation, living, and production costs; (b) the wages established for work of comparable character by collective labor agreements; (c) the wages paid by employers who voluntarily maintain minimum-wage standards in the industry.

Must the administrator accept the recommendations? No, he may refer the question back for further study or appoint a new committee.

Can he establish a minimum hourly rate other than that recommended by the committee? No.

Enforcement—What penalties are provided for violations? A fine of not more than \$10,000 or imprisonment for not more than six months, or both.

Can workers collect the difference between the legal wage and the amount they have actually been paid by employers violating the law? Yes.

Are workers protected if they report violations or testify against their employer? Yes, employers are prohibited from discriminating against them.

The enforcement of the law will no doubt effect a material reduction in the employment of inexperienced helpers, and employers will exercise extreme caution in entering any new contracts for labor until they have a clear understanding of their rights and responsibilities.

Oklahoma Elevator Increases Storage

A vigorous demand for more local storage space led the Farmers Elevator & Cooperative Assn at Hennessey, Okla., to increase its elevator capacity from 210,000 to 285,000 bushels by the construction of a new 75,000 bushel concrete elevator at the east end of its old elevator. The new construction was built as a separate unit, although separated from the older elevator by only four feet, and connected with it by spouting so that wheat may be moved freely from one to the other.

Manager Ernest A. Kee when interviewed about the time Chalmers & Borton were completing the construction and installation of the machinery in the new elevator said, "This company normally handles about a half million bushels of grain, nearly all wheat, annually. The combine method of harvesting results in the crop being trucked to the elevator very rapidly, often at the rate of 35,000 bushels per day, during the harvest season. Trucks must be unloaded quickly in order to prevent congestion. Construction of a complete new grain receiving unit, rather than additional storage bins doubles our receiving capacity."

"The demand on the part of our farmers for storage service requires us to store well over half our harvest time receipts. Being able to store the grain at home saves us tremendous storage charges at terminal points. Our elevators are federally licensed to perform this service and we found last year that our 200,000 bus of fire-proof concrete storage space was insufficient to satisfy the local demand. Much of our receipts had to be shipped to terminal elevators for storage. Hence the addition of a new elevator."

The receiving capacity of the elevator was actually more than doubled in the construction program carried out by Chalmers & Borton, who built the company's first concrete elevator and its addition, as well as the new unit. This was done by extending the driveway of the old elevator 6 feet, and installing larger grates, and



New 75,000 bushel elevator of Farmers Elevator & Cooperative Ass'n, Hennessey, Okla., is built adjacent to company's old 210,000 bushel unit.



"Bud" Kee examines new wheat sample brought to elevator by his father, Earnest A. Kee, manager Farmers Elevator & Cooperative Ass'n, Hennessey, Okla.

an Ehrsam 5 h.p. overhead truck lift to handle the big trucks. The 57-inch lift Kewanee truck dump from this driveway was re-installed in the driveway of the new elevator to handle the smaller trucks. The old elevator takes wheat away from its double receiving pit at the rate of more than 4,000 bushels per hour with two legs; the new elevator has only one 3,500 bus leg.

The new elevator, 43x32 feet at the foundation, consists primarily of two huge tanks. 18 feet 6 inches in diameter, and 108 feet high. The driveway is 14 feet wide, and 25 feet long. Over the driveway and the work floor are six overhead bins. All bins spout to the receiving sink as well as the boot. Even the main tanks can drop most of their contents into the receiving sink. A spout from the dump sink leads to the tunnel conveyor in the old house. A diverting valve will close off this spout to drain wheat to the new elevator's boot.

The leg, carrying 6x10 inch Calumet cups on 9-inch centers over a 5 foot head pulley turn-

ing at 38 r.p.m., is driven by a 15 h.p. enclosed motor thru an Ehrsam head drive. This motor also runs a fan in the cupola for relieving air pressure built up in the steel leg casing. Sheet metal trunking connects the back and front legs just above the boot to by-pass air pressure. An Ehrsam hand power manlift, as well as a steel ladder, connects the new elevator's work floor with the cupola.

To weigh trucks as big as they come the company has a 20 ton Fairbanks type-registering beam truck scale with 10x34 ft. concrete deck beside the new 3-room modern, terrazzo floored brick office. This weighing equipment has been augmented with installation of a 10-ton Fairbanks truck scale with 8x22 ft. concrete deck on the opposite side of the office. By this means Manager Kee, and his son "Bud," who assists him with the office work, are able to operate the old and the new elevators as separate units from the same office during the rush movement of wheat, taking the small

trucks over the 10-ton scale and into the new elevator; the big ones over the 20-ton scale and into the old elevator.

Grain Sampling

By HARRY MILLIMAN, Grain Supervisor, Minneapolis, Minn.

The Department of Agriculture in its administration of the Grain Standards Act, holds that the licensed inspector is responsible for the correctness of the sample upon which he bases the grade of any lot of grain. For correct grading, it is essential that the sample, properly identified, be preserved in its original condition from the time it is taken until the grade is determined and that it be of sufficient size to permit the required tests to be performed.

First, let me enumerate the necessary equipment a grain sampler needs to perform his duties:

Tickets: To record all information pertaining to car of grain.

Pinchbar: To open and close doors.

Seals: To reseal box car doors.

Trier: Double-tube compartment, 60 inches long.

Canvas: 30 inches wide by 63 inches long.

Bags: Waterproof cloth bags.

Cans: Moisture-proof for wet grain.

The grain sampler goes to railroad yard office and receives his car numbers from the grain clerk. He does not see the freight waybill, therefore he does not know who is the shipper or receiver, furthermore, he is not interested in ownership; his duties are to sample all grain correctly as a disinterested party.

After he receives his car numbers he contacts the railroad yardmaster or yard clerk for track locations, sometimes this is an easy job when a yard check is available, but when switch engines are moving cars constantly during the grain rush period, it takes an experienced sampler to locate cars, as every railroad seems to have a different method of handling grain cars.

When he has located the car of grain he records on sample ticket the location, car identification, seal removed and seal to be applied, also notes the condition of the car as to leaks. After he has opened the car door he climbs into car and spreads his sampling canvas on top of grain in front of door where there is good light. No private sampling bureau men are allowed in car when inspection sample is taken. If there is no clearance of 24 inches from top of grain to roof or car, it is considered a high load and is recorded on sample ticket.

The sample is taken with a double-tube compartment trier 60 inches long (commonly called probe) by probing in five or more places well distributed in different parts of the car, in the discretion of the sampler, and as many more probings as may be necessary to secure a representative sample from the grain in different parts of the car. Care should be taken that each probe be kept separate on sampling canvas, so a thorough examination can be made of all probes for uneven mixtures, such as smut, odors, moisture, stones, live insects, heating or plugged cars. All this information to be recorded on sample ticket for inspector's information. All samples of grain are to be enclosed in waterproof bags except when there is a possibility of change of identity of the grain, then it must be enclosed in a moisture proof can.

When a car is found to be plugged under all circumstances, an average sample of the car is probed and ticket marked average. The plugged portion is probed and estimated in fractional parts as 1/5 car bottom end or as the case may be and the balance is probed and the ticket in this case will read Balance 4/5 car. In simple language you will have average of car, 1/5 car bottom end and 4/5 car balance. Each portion of the plugged car is identified and kept in a separate bag. All portions of plugged cars are tied together for inspectors' convenience.



Tile-roofed, brick office of Farmers Elevator & Cooperative Ass'n, Hennessey, Okla.

Grain Carriers

Last departure of the Federal Barge Lines will be from Chicago, Nov. 21, and from Peoria, Nov. 23. From St. Paul and Minneapolis service will close Nov. 11.

Cars loaded with grain and grain products during the week ending Sept. 24 numbered 39,985, against 35,832 a year ago, as reported by the Ass'n of American Railroads.

Grain loadings during the fourth quarter of 1938 are forecast by the 13 shippers advisory boards as 263,363, against 279,022 carloads during the fourth quarter of 1937.

National Industrial Traffic League will hold its 31st annual meeting Nov. 17 and 18 in the Pennsylvania Hotel, New York, N. Y. The executive com'te will meet Nov. 15 and 16.

The grain door hearing, by the Illinois Commerce Commission has been postponed until Nov. 14. The Interstate Commission postponed the hearing on Docket 28,045, Chicago Board of Trade, on the same subject from Sept. 12 to a date to be set later.

Duluth grain trade and traffic men are fighting a threatened diversion of midwestern grain shipments from the Head of the Lakes, via water route to the east, to railroads running by way of Minneapolis to Chicago.—F.G.C.

Washington, D. C.—Organized Motorists, Inc., recently formed corporation to eliminate "inequities, abuses and discriminations against private motorists" is seeking nation-wide membership. Among the purposes of the organization is "to obtain more stringent and more uniform regulation of buses and trucks, their speed and size."

Washington, D. C.—W. Y. Blanning, director of the Bureau of Motor Carriers, interprets the 1938 amendment to the Motor Carrier Act of 1935 as requiring private motor trucks to display identification plates, but he adds that regulations making this requirement have not been issued, and until they are, private carriers need not display such plates.

Drivers of motor vehicles operated by common and contract carriers have their hours of labor regulated since the regulations of the Interstate Commerce Commission went into effect Oct. 1. The truck driver must carry a log book entering a multiplicity of detail on a prescribed blank form, the keeping of which will cause expense and loss of time.

The Rock Island has petitioned the U. S. Circuit Court of Appeals for a review of the decision against it in the suit of Lowden vs. Simonds-Shields-Lonsdale Co., to recover for alleged services in the installation of grain doors in cars. The effective tariff required prior arrangement to be made with shippers and the court held the railroad companies had failed to make such "prior arrangement."

Milwaukee transit and back-haul should be revised according to Examiner Disque in reporting to the I.C.C. on No. 27,909 and I. & S. No. 4,427. Out-of-line and back haul charges from points in Illinois, Iowa, Minnesota, South Dakota, Missouri River and intermediate points are held to be unreasonable. Six other terminal markets oppose the petition of the Milwaukee Grain and Stock Exchange.

Washington, D. C.—Protests have been filed with the I.C.C. by trade organizations in Mobile, Ala., Cairo, Ill., New Orleans, La., and Duluth, Minn., against new freight schedules on eastern railroads reducing rates on grain for exports from the interior to Atlantic Seaboard points. The new lower rates on export grain were filed to become effective Oct. 28. The I.C.C. reduced the required notice of change in rates from 30 days to 20 days to facilitate the reduction.

Attalia, Wash.—A new combination wheat and gasoline barge, built by the Tidewater Transportation Co., was put into service on the upper-Columbia river Sept. 26. The new barge has eight tanks in the center that will hold about 135,000 gallons of gasoline, two bns aft and two fore that will hold 9,500 bushels of bulk wheat. It is 134 ft. 3 ins. long, 32 ft. 6 ins. wide, and between eight and nine feet deep at its deepest point. With the new barge the Tidewater company, which has been engaged in barging gasoline up-stream, will inaugurate its first effort to carry gasoline up-stream and wheat down-stream, thus handling a pay load each way.

San Francisco, Cal.—Pacific Coast corn buyers have asked transcontinental railroads to establish a rate of 58c per hundredweight from group E points in Iowa and west to the Pacific Coast on corn in minimum carloads of 80,000 pounds. The present rate is 65c. Basis of their contention is that corn production in Nebraska this season will again be below normal, and that with partial failure of the crop in western Iowa, their corn requirements will have to be supplied from eastern Iowa, Illinois, Missouri, and Indiana. Unless the rail rate is adjusted, they declare, this movement of corn will be handled mostly by water, via the Mississippi river and coast line carriers.

The new reshipping or proportional rates, in cents per 100 pounds, from Chicago, are: 16 cents to Baltimore, 16½ cents to Philadelphia, and 17½ cents to New York City, with the usual differentials from related gateways, such as Peoria and St. Louis. The Interstate Commerce Commission has granted permission to make effective Oct. 21 (on 20 days' notice) the reduced export rates on grain. The reduced rates apply only on wheat, corn, oats, rye and barley and do not apply on grain products or soybeans. The Grand Trunk Ry., Canadian National Rys. and Canadian Pacific Ry. are not parties to the reduced rates. There is no change in the specifics or proportionals to Chicago from Illinois and Indiana, and the thru export rates which apply via Chicago are reduced on the basis of the present specifics or proportionals to Chicago plus the new reshipping or proportional rates from Chicago. Under this readjustment the thru export rates on grain from central Illinois will become 4 cents per 100 pounds greater to Baltimore than to New Orleans.—J. S. Brown, manager Transportation Department, Chicago Board of Trade.

Railroad Strike Threat

President Roosevelt has created an Emergency Board of three to investigate an existing dispute between railroad labor and the carriers, which carries a national strike threat that would tie up the railroads and "interrupt interstate commerce."

The threat grows out of an effort of the carriers to reduce railroad wage scales by 15%, on the contention that present railroad wages are 15% higher than in 1929, and that railroad income is too low to pay present wage scales. Railroads claim to have met with refusal of the proposed reduction in conferences with their employees, in mediation, and in every effort to arrive at settlement, including submission of the question to an arbitration board whose decision would be binding.

Railroad employees' unions, accepting the statement recently made by the Railroad Retirement Board, declare the average earnings of railroad employees in 1937 were only \$1,115. Carriers declare that this figure is based on total workers, including 13% who worked in only one month, and 7% who worked in only two months, and the average income of a railroad employee working thruout the year was \$1,785.

Employee earnings per hour, declared J. Elmer Monroe, statistician for the Bureau of Railway Economics, before the President's

com'te, reached an all-time high of 75.9c in the first six months of 1938. In contrast, he declared, the railroads' rate of return earned on investment, on an annual basis, dropped to but two-thirds of 1% in the same period.

7c Maximum for Canadian Lake Carriers

Winnipeg, Man.—The Canadian Board of Grain Commissioners has limited to 7c per bushel the maximum rate for carrying wheat by lake and rail from the head of the lakes to Montreal, Sorel, Three Rivers, and Quebec. Diversion of space to the ore carrying trade has created a shortage of lake carriers and boosted rates to over 8c per bushel, the highest since 1928, and more than 4,000,000 bushels of wheat were booked for shipment above the new 7c maximum. Exporters and shippers in the Winnipeg market have protested the order, declaring it will hamper the movement of Canada's surplus wheat.

At a hearing in Ottawa, Oct. 4, shipping representatives pleaded that the current situation is their first opportunity in seven years to make up some of their losses in handling grain, on which rates have been as low as 2c. They also declared that the 7c maximum does not conform with rates paid American carriers. Chairman E. B. Ramsey of the Board of Grain Commissioners said that weighted averages showed a 4c rate for the last five years.

While reconsidering the request of shipping interests for lifting of the maximum, the Board rejected their request for a temporary maximum of 7½c.

The Black Wheat-Stem Sawfly

By J. S. HOUSER, Ohio Exp. Station

The black wheat-stem sawfly decreased sharply in abundance this season and little advance was made in the spread westward. This announcement will be welcome news to Ohio wheatgrowers who are acquainted with this new wheat pest and who have studied its advance since its presence was discovered in 1934.

This year the insect was found for the first time in Cuyahoga, Huron, and Richland Counties, and some new territory was added in Geauga and Athens Counties. In a few of the counties within the last year's area of occupancy, there was a slight increase in infestation, as for example, Geauga, Portage, Summit, Wayne, Holmes, Knox, Coshocton, Perry, and Athens, but these increases were so slight that they are insignificant. Of far greater importance is the sharp decline in percentage of infestation in the old area of heavy infestation. Mahoning, Columbiana, Carroll, and Tuscarawas declined from 41, 53, 63 and 42 to 3, 14, 13, and 24 per cent respectively.

It is impossible at this time to say with certainty what factor or factors were responsible for the slump in infestation of the sawfly this season, altho there is some evidence to indicate that parasitic insects may have been of considerable importance. Neither can a forecast be hazarded concerning the probable significance of the insect next season. It is to be hoped, however, that this new pest has reached its climax and that it will not be as destructive as its earlier behavior gave good reason to suspect.

Portland, Ore.—Terminal elevator storage operators in the Pacific Northwest, refusing to become involved in issuing protein certificates, have experienced difficulty with the federal government, which has with one exception, refused to grant them authority to store wheat on which the government made loans. The elevator operators are seeking to convince government officials in Washington that Pacific Northwest hard winter wheat is of strictly export quality, and does not rate with Southwestern wheat in its protein content.

Grain and Feed Trade News

Reports of new elevators, feed mills, improvements; changes in firms; fires, casualties, accidents and deaths are solicited.

CALIFORNIA

Davis, Cal.—W. E. Lloyd, new owner of the old jail building, will turn the structure into a feed storage house. He will move the building north of town where he has turkey and chicken yards.

Sacramento, Cal.—Suggested meeting dates for Southern California meetings, on which occasions the secretary of the California Hay, Grain & Feed Dealers' Ass'n will be in the various districts and at the service of ass'n officials and members there, are: Oct. 18, Los Angeles; Oct. 20, Riverside; Oct. 21, San Bernardino; Oct. 24, El Centro; Oct. 25, San Diego; Oct. 26, Santa Ana; Oct. 27, North Hollywood; Oct. 28, Pomona-Ontario; Oct. 31, San Gabriel; Nov. 2, Gardena; Nov. 3, Santa Barbara; Nov. 4, San Luis Obispo.—I. J. Stromnes, sec'y.

CANADA

Iron Springs, Alta.—The 60,000-bu. grain elevator of Alberta Pacific Grain Co. was destroyed by fire Sept. 14.

Churchill, Man. — The Daleby docked at Churchill, Manitoba's northern port on Hudson Bay, on Sept. 25 to load wheat. The Rudby docked Sept. 29 and the Gullpole on Oct. 2.

Fort William, Ont.—A youth was sentenced to serve two months in jail when he pleaded guilty to a charge of retaining in his possession a quantity of C.P.R. grain doors, knowing them to be stolen.

Prairie Siding, Ont.—The Hiram Walker & Sons, Ltd. of Walkerville, Ont., is installing a Randolph Direct heat grain drier at its local elevator. This drier operates on hard coal and will be ready for operation to receive the coming corn crop. Corn is looking very good in this locality and a large crop is promised.

New Westminster, B. C.—Installation of five new spouts at the Searle Grain Elevator has been completed. The \$20,000 improvement project thus brot to a close speeds up and thoroughly modernizes the loading facilities at the elevator. The installation work involved the raising of the spouts and the remodeling of the tops of the grain bins, requiring several months' work.

Port Arthur, Ont.—Directors of Saskatchewan Wheat Pool met here Sept. 26 in annual session. A. F. Sproule, vice-pres. of the Pool, in charge. Terminal elevators of the Pool system were inspected following the business meeting. In attendance were: A. F. Sproule, J. D. Read, Regina, general mgr.; W. Reddell, Regina, treas.; George Robertson, Regina, sec'y; Frank McLaren, Winnipeg, mgr.; T. G. Bobier, Moose Jaw; R. A. Robinson, Regina; Brooke Catton, Hanley; E. Cooke, Regina; L. W. Elliott, Flaxcombe; Marsh Adams, Stoughton; J. I. Bell, Kerrobert; O. Nylands, Shaunovan; J. W. Russell, Rokeby; and J. P. Jenkins, Kelvington.

WINNIPEG LETTER

A. E. Spendlove, member of the Winnipeg Grain Exchange, died here Sept. 17. He was pres. of Inland Shipping Co., Ltd.

Thomas Henry Metcalf, a member of the Grain Exchange since 1896, died recently. Frank, one of four sons, is a member of the exchange.

Paul Feuer, formerly vice-pres. and manager of Finger Lakes & Hudson Flour Mill, Geneva, N. Y., will join the Continental Grain Co. force in Winnipeg. He has recently returned from a European honeymoon trip with his bride.

On Sept. 30, 1938, the wheat Board announced that producers must declare their intention of delivering wheat in store in country elevators to the Board as soon as possible and not later than 10 days from date of delivery into the elevator. Previously producers could store wheat indefinitely and declare their intention to deliver whenever they saw fit.

The Canadian wheat board on Oct. 4 increased the area in Alberta which will move Nos. 1 and 2 Northern to the lakehead instead of Vancouver. Until such time wheat is sold from elevators at Vancouver, Edmonton and Calgary, the two top grades will be moved five cent differential points in Alberta.

An operating loss of \$154,529.28 before including income from investments, was reported in the statement of the Western Grain Co. for the year ended July 31, 1938, issued by A. C. Reid, vice-pres. and general manager. This compares with the loss of \$8,880.95 shown last year. Including investments the operating loss is reduced to \$140,612.28 for the year. After providing \$116,229.31 for depreciation of fixed assets, \$163,200 for accrued bond interest, \$20,980.68 for loss on disposal of fixed assets and paying directors fees of \$825, a net loss of \$441,847.27 was transferred to deficit account. This compares with \$224,394.41 loss transferred to this account last year.

COLORADO

Ignacio, Colo.—Fire of unknown origin completely destroyed the Black flour mill Sept. 16. Loss of the building and contents was estimated at more than \$5,000, partly covered by insurance.

Boulder, Colo.—Senator Harry Casaday, 79, one of the pioneer alfalfa meal millers, founding a company here about 1908, and an early member of the American Feed Mfrs. Ass'n, died recently.

ILLINOIS

Eureka, Ill.—The Farmer's Co-operative Grain Co. has installed a 20-ton, 24-ft. Howe Truck Scale.

Peoria, Ill.—Duboff Feed & Poultry Co. has installed a new Kelly Duplex Corn Cracker and Grader.

Elburn, Ill.—A new Soweigh Truck Scale has been purchased by the Elburn Co-operative Elevator Co.

Medora, Ill.—Medora Elevator recently bought a combined sheller and boot from the Sidney Grain Machinery Co.

Raparee, Ill.—The Farmers Co-operative Ass'n recently sold its property to Lorene N. Porch and wife for \$5,500.

Voorhies (Bement p.o.), Ill.—The Voorhies Co-operative Grain Co. elevator sustained a small loss by fire recently.

Henderson, Ill.—Electrical breakdown was the cause of a small loss to the elevator of E. W. Davis in September.

Clarksdale (Palmer p. o.), Ill.—The Farmers Grain Co. elevator was destroyed by fire of unknown origin on Oct. 3.

Nora, Ill.—We are just finishing construction of our new flour and feed mill and elevator.—Nora Milling, Lumber & Fuel Co.

Pierron, Ill.—Pierron Equity Exchange Co. recently installed a new one-ton capacity Kelly Duplex Feed Mixer with motor drive.

Cadwell, Ill.—Eldon Huffard, manager of the Moultrie Grain Ass'n elevator, was married recently to Miss Helen Churchill, living near Decatur.

Gridley, Ill.—Illinois Central grain dealers held a meeting here Sept. 1 attended by 100 and addressed by prominent speakers on pertinent subjects.

Kankakee, Ill.—Fred Swannell, Jr., has purchased the interest of Paul Laird in the Laird Grain Co. He and Henry Leavitt will continue to operate under its present name.

Galva, Ill.—Galva Co-operative Grain & Supply Co. is planning to construct a corn crib near its elevator, to have a capacity of about 2,500 bus. E. W. Miller is local elevator manager.

Crystal Lake, Ill.—The National Grain Yeast Corp. of Belleville, N. J., has completed the remodeling of the building the company recently purchased and will open its efficiently equipped yeast manufacturing plant Oct. 15.

Taylorville, Ill.—A small blaze, started in dust that had accumulated in a vent stack on a drier on the roof of the plant of the Allied Mills, Inc., soybean processing plant, Oct. 2, was extinguished by firemen before any damage occurred.

Delavan, Ill.—A meeting of the grain trade of the Streator-Wenona territory was held at the Club, South Bluff, two miles south of Peru, Thursday evening, Oct. 6. Dinner was served at 6:30 o'clock. This was the first meeting held under the direction of the new chairman, John McLuckie.

Shannon, Ill.—The Shannon Grain Co., recently purchased by Elmer Zuck of Lanark, is now doing business, in charge of J. F. Piesen. The company has remodeled its entire building and a new 20-ton, 34-ft. scale has been installed. The new concern is specializing in all kinds of feed and grain.

Mt. Morris, Ill.—A team of horses was electrocuted at the Farmers Elevator recently during the operation of an electrically driven pump. The horses were standing in a pool of water and were hitched to a wagon with iron wheels and metal tongue which became connected, thru the water, with the current caused by a defect in the dump.

McNabb, Ill.—McNabb Grain Co. is rebuilding its mill, burned July 4, but on a much smaller scale than the old one and at a site about 300 ft. distant from the company's new elevator. The new mill is rapidly nearing completion. The new elevator was being completed at the time the old elevator, which was being used as a mill, burned, and was not damaged by the fire.

Crescent City, Ill.—Fire of unknown origin destroyed the Harlan & Sterrenberg grain elevator the night of Sept. 30, and 29,000 bus. of oats and 7,000 bus. of corn stored there. The total loss was estimated at \$20,000. The elevator, owned by Mrs. Bess Harlan, of Hoopston, and John Sterrenberg and his son, Herbert, was built in 1907 replacing another destroyed by fire that year.

Peoria, Ill.—The Peoria Grain Co. has bot the plant of the defunct Peoria Distillers, Inc. What the plant and equipment will be used for has not been announced. The property includes three stills, 15 ferment tanks with a 15,000-gal. capacity each and milling equipment. The contract signed by the grain company provides for transfer of land, buildings and all equipment. The Peoria Grain Co. owns and operates several elevators.

Chester, Ill.—A group of union men from Ste. Genevieve, Perryville, Sparta and other communities in this area, early the morning of Sept. 24 visited the scene of the H. C. Cole Milling Co. where excavation was underway for a new 250,000-bu. grain elevator, and halted non-union workmen engaged on the project under threats of violence. Some of the union forces wanted to storm the mill and stop all work there, but were dissuaded from doing so by some others in the crowd, it was stated by bystanders. Union pickets were then stationed at the scene. Ryan Construction Co. has the contract.

Glasford, Ill.—Harry Bruninga, owner of the Glasford Grain & Milling Co., is enlarging the dump pit at the elevator and when completed, will use it to house a corn sheller and a hopper that will hold two truck loads of ear corn. The pit was originally about eight ft. deep, and was put down about eight ft. more, which was far below the foundation of the elevator, whose walls began to cave in and had to be cribbed up until they could be concreted. The pit itself will be concreted and then lined with sheet iron to make it water-tight, and then three or four inches of concrete placed inside that.

Weldon, Ill.—R. H. Sims, 26, was injured Sept. 12 when he fell between a moving truck and the wall of the Weldon Grain Co. elevator. He was treated at John Warner hospital.

CHICAGO NOTES

Membership transfers on the Board of Trade sold down to \$2,350, a decline of \$400 from previous sales and one of the lowest on record. Several years ago memberships sold as high as \$65,000.

Ralph H. Brown, Shields & Co., has been appointed sec'y of the Ass'n of Grain Commission Merchants of the Board of Trade, to succeed E. A. Boerner, who resigned after holding office since 1931.

The first transfer of the Board of Trade membership in nearly a month was that of Edgar O. Bragg, who was admitted in 1906, which on Oct. 1 was posted for transfer to Joseph H. Wingert of Chicago.

George C. Martin, who has been manager of the Farmers Elevator Co. at Ottawa, resigned recently, and has been assigned by the A.A.A. to take charge of an office opened in Chicago to assist in the current flour export program.

John W. Barwell, 84, died Oct. 3 at his home in Waukegan. Mr. Barwell was engaged in the Blatchford Calf Meal Co. in 1899. Since 1800 his family has been in the feed business in England. He was a former member of the Board of Trade.

Austin D. Sturtevant, a member of the Board of Trade, has recently become associated with Rosenbaum Bros., Inc., where he will specialize in soybeans. Mr. Sturtevant was formerly soybean specialist for Bartlett Frazier Co., of which his father, C. D. Sturtevant, is president.

Charles Head Smith, 80, a member of the Board of Trade for nearly 50 years, died Oct. 4 in a hospital at Montclair, N. J. Mr. Smith retired seven years ago and went to live at the home of his daughter in Montclair. He was associated with Edwin C. Partridge in a number of wheat market coups years ago.

INDIANA

Bicknell, Ind.—O. L. Barr Grain Co. has installed a Blue Streak Corn Cutter and Grader.

Stroh, Ind.—Stroh Grain Co. recently installed a one-ton Kelly Duplex motor driven Feed Mixer.

Monroeville, Ind.—A small loss by fire was experienced recently at the Monroeville Co-operative Equity Union Exchange.

Mellott, Ind.—McCardle Grain Co. has installed a motor driven Blue Streak Hammer mill with electric magnetic separator.

Nappanee, Ind.—Kenneth H. Stump has installed a new Kelly Duplex Hammer Mill, Corn Sheller and one-ton capacity feed mixer.

Eaton, Ind.—Goodrich Bros. have replaced their feed mixer with a new Kelly Duplex machine of one-ton capacity, motor driven.

Chili, Ind.—Chili Roller Mills recently purchased a combined sheller and cleaner and elevator from the Sidney Grain Machry. Co.

Plymouth, Ind.—A small amount of damage resulted at the elevator of Ivan and Ella Syler on Sept. 14, the result of an electrical breakdown.

Waterloo, Ind.—The Waterloo Mills has almost completed the installation of new hammer mill mixer and drags, and some general improvements.—A. E. L.

New Harmony, Ind.—A. C. Thomas, for many years engaged in the grain and elevator business here, recently was hurt in an automobile accident, his automobile having collided with another car.—W. B. C.

Fowler, Ind.—The Fowler Business Men's Ass'n has announced they will sponsor an Indiana corn festival Oct. 14 to 15. The festival will be preceded by selection of an Indiana corn queen, who will hold court at the exhibition.—W. B. C.

Aurora, Ind.—The Aurora Flour & Feed Co. purchased the Star Mill from T. J. Martin. The company expects to move its headquarters into the new location and continue to use its present location also.

Madison, Ind.—Irwin's Feed Store are now using the new equipment furnished them by the Sidney Grain Machry. Co., including the Eureka Grain, Corn and Cob Cleaner, Manlift, Boot sheller, and a large elevator.

Graham (Washington R.F.D. 1), Ind.—The Graham Farms Elevator is erecting six concrete grain bins and installing a 300-bu. Randolph Grain Drier. A part of the plant and some outside corn cribs were badly damaged in the severe windstorm that swept the community last July.

Ft. Wayne, Ind.—Clyde H. Hendrix has been appointed sales manager of the McMillen Feed Mills, Inc. Robert P. O'Brien, vice-pres. of the company, who has been sales manager, has been relieved of feed sales supervision, but will continue his executive duties with the McMillen Feed Mills as well as direct the sales of the Central Soya Co.

Romney, Ind.—D. P. Simison, known to his many friends in the grain trade as Parker Simison, died Oct. 1, following a heart attack. He had been in the grain business for many years, disposing of his interests early this year. He had been an active member of the Indiana Grain Dealers Ass'n for many years, serving as vice president a number of years ago.

Auburn, Ind.—Franklin Robinson has leased the elevators at Auburn and Spencerville owned by Roscoe Walter and will conduct both locations under the firm name of Auburn Grain Co. During the past year Mr. Robinson has been manager of the Levy Grain Co. elevator at Ossian, Ind., and was formerly associated with Syler & Syler at Nappanee.—A. E. L.

Indianapolis, Ind.—The Cleveland Grain Co.'s local plant has been equipped with two 750 bus. per hour Randolph Oil Electric Grain Driers in a tank. This installation is the same as the company has at Mansfield. The furnaces are 45 ft. above the ground line in other words, these furnaces are located between the drier and cooler. There is room for 17,000 bus. above the drier and 7,000 bus. of corn in the bin below the drier. The Cleveland Grain Co. now has three of its large plants equipped with Randolph Direct Heat Driers.

Otterbein, Ind.—Arvil Johnson, who recently sold his interest in the Fowler Grain Dealers elevator at Fowler, has purchased the west elevator here of the Crabb - Reynolds - Taylor Co. of Crawfordsville. This deal was followed by another in which Mr. Johnson's newly acquired elevator and the other Otterbein elevator, owned by Walter Rich, were consolidated and following Oct. 1 are being operated under the corporation name of the Rich & Johnson Grain Co. Both elevators will remain open but the main office of the corporation will be at the east elevator.

Kokomo, Ind.—About 35 grain dealers attended a district meeting at Kokomo the evening of Oct. 5 at which it was the consensus of opinion that a trucking charge of 2c on soybeans would be made, and this collected from the farmer. This is a reasonable charge for such service rendered and should be made universal thruout the state. The district organized at this meeting and elected Hal Thompson of Kokomo, pres., and Chris Bahler, Galveston, sec'y-treas. Meetings, both for business and of a social nature will be held from time to time. The next meeting will be within the next two or three weeks and a dinner will precede it. Our ass'n recommends that other localities get together and organize their group. Much good can be derived from such an organization and a better acquaintance with your nearby fellow grain dealers will result.—Fred K. Sale, sec'y, Indiana Grain Dealers Ass'n.

IOWA

Plainfield, Ia.—J. Roach & Sons have installed a new feed mixer.

Kamrar, Ia.—The Farmers Elevator & Supply Co. has built a 20x40 ft. warehouse.

Lost Nation, Ia.—A new feed mill conveyor has been installed at the George Dabling Mill.

Percival, Ia.—Thieves broke into the Kellogg and the C. W. Good elevator offices the night of Sept. 28 but found nothing of value for their efforts.

LeMars, Ia.—The Plymouth Cereal Mills elevator has been licensed as a federal bonded warehouse.

Pomeroy, Ia.—The west elevator belonging to the Pomeroy Co-operative Grain Co. is being torn down.

Titonka, Ia.—The Farmers Elevator Co.'s offices were broken into the night of Sept. 16 but nothing of value was taken.

Gilbertville, Ia.—The Gilbertville Grain & Lumber Co. has installed a new feed mixer. J. M. Delagardelle is proprietor.

Stacyville, Ia.—Albert Weber, of near Johnsbury, has purchased the Stacyville mill property and is planning to remodel the mill.

Dysart, Ia.—The feed business of the Tamba-Benton Grain Co. has been taken over by Hans Wieck, local trucker and feed dealer.

Bondurant, Ia.—Joe Smay, for the last six years manager of the Clark-Brown Grain Co. elevator here, has resigned, to enter the road contracting business, and moved to Nevada.

Lone Tree, Ia.—Rough ground east of the Farmers Exchange elevator has been graded and smoothed, filled with crushed rock and made passable for trucks and wagons calling at the elevator.

New Sharon, Ia.—Andy Lamis, Sr., manager of the Lamis Elevator at New Sharon, announces the installation of a new Brown-Duvel electric moisture tester of the very latest design.—L.A.G.

Des Moines, Ia.—At a recent meeting of the board of directors of the Farmers Grain Dealers Ass'n of Iowa it was decided to hold the ass'n's annual convention at the Savery Hotel in Des Moines on Jan. 24, 25 and 26, 1939.—D. E. Edson, sec'y.

Goodell, Ia.—On Oct. 4 fire destroyed one of the Hubbard Grain Co., Inc., elevators here. It contained 10,000 bus. of oats at the time. The loss could not be estimated immediately. A lumber yard adjoining the elevator was saved.—A. G. T.

Collins, Ia.—The new 5,000-bu. capacity corn crib at the Wilder Grain Co. elevator is rapidly nearing completion. The structure is fireproof, of tile block material, 20 ft. in diameter, rises to a height of 35 ft. C. R. Stone is manager of the local elevator.

Hedrick, Ia.—W. I. Miller, who has operated and owned the Square Deal Milling Co. for the past ten years, has purchased an interest in the Des Moines Co-operative Seed Co., Inc. which will be operated as a partnership. Mr. Miller will dispose of his business here.

Mt. Ayr, Ia.—W. V. Brenizer, of Lamoni, has purchased the Mt. Ayr elevator, a trust of the Mt. Ayr State Bank, which has been operated by R. A. Payne & Sons. Mr. Brenizer will install additional equipment in order that he may handle all kinds of feed and seeds.

Osceola, Ia.—Anticipating recent action by the C., B. & Q. railroad company discontinuing operation of its branch line from Koyle, Ia., to Cainsville, Mo., the Talbott Grain Co. wrecked its houses at Pleasanton, Ia.; Saline and Cainsville, Mo., which towns are located on the branch line, disposed of the lumber and then canceled the railroad leases on which the plants were located.

Marshalltown, Ia.—The Kessler Grain Co., the Rubenbauer Elevator Co. and the Farmers Elevator Co. of Green Mountain are defendants in three suits in district court brought by the Equitable Life Assurance Society of the United States. The allegations in each are the same, the petition setting out that the plaintiff rented farm land to Fred Boone for the year ending Feb. 28, 1938, that it had a half interest in corn produced on the acreage, and that the defendant became indebted to plaintiff for cash rental, which it alleges is unpaid. Corn was sold by Boone to the three defendants, the plaintiff charges, and the corn has been converted to the uses of the purchasers. In each suit the plaintiff seeks judgment for \$212.50.

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Des Moines, Ia.—A guard will be maintained at the new Des Moines Feed & Supply Co. warehouse which was wrecked on the night of Oct. 2 by a dynamite bomb. Private detectives investigating the occurrence have found no explanation for the blast, James M. Bianchi, pres., stated. Damage to the building, which was finished only a few months ago, was estimated at \$2,000. Rebuilding of the wrecked warehouse will be completed soon.

Wapello, Ia.—The board of directors of the Wapello Farmers Elevtr. & Exchange rejected all bids for the construction of a refrigeration locker plant at a recent meeting and decided to manage their own construction work, letting contracts to individual contractors on both construction and equipment. The estimated cost of the completed plant is \$12,000. Plans call for a 400-locker plant, 37x66 ft., with slaughter house and complete processing equipment.

Cedar Rapids, Ia.—A retirement annuity plan for thousands of employees of the Quaker Oats Co. in the United States and Canada has been adopted by the board of directors of the company, to pay retirement incomes in proportion to years of service. Both firm and workers will contribute to finance the program, which applies at ages 55-65. A special "Past Service" provision has been made for employees nearing the retirement age of 65 years for men and 60 for women.

Matlock, Ia.—The jury in the Pater suit against the Matlock Elevtr. Co. gave a verdict in favor of the defendant company and a judgment for costs was rendered against Gerrit Pater, administrator, in the sum of \$230.10. This was the first of three suits brought against the elevator in connection with the deaths by burning of Mrs. Pater and daughter, Mary Jane, and was brought against the company by Mr. Pater as administrator of the estate of the daughter. The other two cases pending will not be brought up in this term of court.

Mason City, Ia.—Audits made by the Farmers Grain Dealers Ass'n of Iowa of 91 ass'ns reveal that 83 of that number made net gains during the fiscal year ending last June 30. The distribution of the 91 companies according to the amount of net gain or loss was as follows: Net gain, over \$5,000, 23; net gain, \$3,000 to \$5,000, 16; net gain, less than \$3,000, 44; net loss, less than \$500, 3; net loss, over \$500, 5. The average net gain of the 91 ass'ns was \$3,650. This compares with an average net gain of \$4,828 for those ass'ns having fiscal years ending during the first six months of 1937. The state ass'n reported total sales of nearly \$32,000,000 for 181 farmers' elevators audited by its representatives and having fiscal years ending in 1937. Total net gains of these 181 ass'ns were nearly \$800,000. There are more than 300 co-operative elevators in Iowa.

KANSAS

Bala, Kan.—Blaine Dodson of the Blaine Dodson Grain Co., died Oct. 7.

Salina, Kan.—W. R. Smith, who recently retired as ass't manager for Goffe & Carkener, Inc., in Hutchinson, has taken a position here in the cash grain department of the Smoot Grain Co.

Girard, Kan.—Orville C. Servis of Winfield has been named manager of the Crawford County Farmers Co-operative Union elevators, taking the place of E. K. Dean, who resigned. Mr. Servis will take charge Oct. 15.

Topeka, Kan.—Plans are being made by the Ismert-Hincke Milling Co. for the remodeling and reopening of the plant. Whether or not the work will be done and the mill reopened depends on the cost, officials of the company announced.

Hutchinson, Kan.—L. H. Pettit died Sept. 29 following a stroke, aged 64 years. He began in the grain business in 1901 with the O'Neill-Kaufman Grain Co. at Kiowa and continued with that company until their Terminal Elevtr. Co. house at Hutchinson burned in 1911, when Mr. Pettit bought their interests and formed the present L. H. Pettit Grain Co., operating several country houses.

KENTUCKY

Winchester, Ky.—Winchester Milling Co. has installed the Eureka corn cutter and grader with motor and V belt drive bought from the Sidney Grain Machry. Co.

Newport, Ky.—Hiland Guernsey Farms have purchased a one-ton Kelly Duplex Feed Mixer with motor drive.

Lexington, Ky.—Fire in an electric motor July 7 was responsible for the loss to the plant owned by Mrs. Matilda C. Talbert.

Hopkinsville, Ky.—Sparks from a defective light socket set fire to burlap bags of wheat causing some damage to stock at the Hopkinsville Milling Co. on Sept. 26.

Henderson, Ky.—The Henderson Elevtr. Co. has let the contract for rebuilding its transfer elevator, recently burned, to Reliance Construction Co., who built the elevator about 40 years ago for the same company.

Mayfield, Ky.—Fire of undetermined origin destroyed the Dairyman's Feed & Supply Co.'s building and stock Sept. 28. The loss is estimated at between \$15,000 and \$25,000. Coy Cook and Curtis Boyd were operators of the plant.

LOUISIANA

New Orleans, La.—The first carload of grain drying equipment for the Port of New Orleans for two 1,000-bus. Randolph Oil Electric Direct Heat Driers, was shipped recently.

MARYLAND

Thurmont, Md.—The Thurmont Milling & Supply Co-operative Ass'n has installed a new cold-mix molasses unit.

MICHIGAN

Detroit, Mich.—Frank Lauhoff, 84, founder in 1882 of the Lauhoff Roller Mills, and holder of a patent for making a breakfast cereal, died Sept. 27.

Harbor Beach, Mich.—George Wrubel of the Harbor Beach Farm Bureau elevator has installed equipment for picking over beans bot at the elevator.

Carleton, Mich.—Kahlbaum Bros. have purchased a Sidney fan, sheller, large elevator, cleaner, and miscellaneous equipment from the Sidney Grain Machry. Co.

Calumet, Mich.—The warehouse property on West Quincy street owned by the Blatz Brewing Co., of Milwaukee, for more than 30 years, has been bot by the State Mill & Elevtr. Co. of North Dakota. The Northern Warehouse Co., distributors of Dakota made products, occupants of the building, will continue to operate there.

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Richmond, Mich.—The Farmers Elevtr. Co. has completed a 30-ft. addition to its large feed mill and added new equipment, the latter including a modern corn sheller and hammer mill.

Washington, Mich.—Thieves forced an entrance to the Washington Elevator early the morning of Sept. 14, pried the combination off the safe, scattered papers about the office, but failed to enter the safe which contained approximately \$1,700.

Romeo, Mich.—Clifton Mills on Stoney Creek, four miles southwest of Romeo, is under new ownership, B. C. Place, Royal Oak, now operating the plant. The mill, which operated solely as a feed mill under the former owner, now is used to produce a wide range of food products. The new owner is stone grinding wheat and grain for farmers of the vicinity.

Lansing, Mich.—All officers and directors of the Michigan Elevtr. Exchange were re-elected at the 18th annual meeting of the exchange held recently. The officers are: Milt Burkholder, Marlette, pres.; Carl Martin, Coldwater, vice-pres., and Frank Gilmore, Parma, sec'y-treas. The board of directors is composed of these three officers and the following stockholders: Waldo Phillips, Decatur; H. H. Sanford, Battle Creek; George McCalla, Ypsilanti; E. W. Irwin, Saginaw; Del Protzman, Elkton, and Andrew Lohman, Hamilton.

MINNESOTA

Walnut Grove, Minn.—Swoffer & Swoffer have installed a new truck lift.

Oslo, Minn.—The Farmers Co-operative Elevtr. Co. recently installed a new truck lift.

Foxhome, Minn.—Repairs are being made on the old Cargill elevator here and it will be used for grinding in the future.

Round Lake, Minn.—The directors of the Farmers elevator held a special business meeting recently to discuss the purchase of another elevator.

Kent, Minn.—The St. Anthony & Dakota Elevtr. Co. recently equipped its local elevator with Calumet Cups and Howell Roller Bearings on head shafts.

Round Lake, Minn.—R. E. Chalmers, of Minnesota, Minn., has taken over the management of the Anderson elevator following Ed Collins' transfer to Egan, S. D.

Austin, Minn.—The Seemann Coal & Grain Co. has installed a new 26-inch attrition mill, equipped with a pneumatic blower, a new type of scalping reel and magnetic separator.

Oklee, Minn.—The Farmers Co-operative Elevtr. Co. has installed a new grain cleaner, repaired the loading side of its elevator and rebuilt its coal sheds. O. L. Skatvold is manager.

Belle Plaine, Minn.—John Lucas has taken over his duties as manager of the feed mill property which he recently bot from Andy Wagner, and has moved his family here from Jordan.

Olivia, Minn.—The grain elevator operated by the Windhorst Estate has been remodeled and new equipment installed. Improvements include Atlas belting, Calumet Cups, and Howell Head Pulley, Distributor and Spouting.

Duluth, Minn.—R. H. Tietze, vice president of the Atwood Larson Co., Duluth grain firm, recently suffered painful injuries and the loss of his left eye in an automobile accident. He is confined in a local hospital.—F. G. C.

Lake Crystal, Minn.—Ray Larson recently purchased the former Marston, Larson & Davis elevator from Hubbard & Palmer of Mankato. He is now remodeling the building into a feed mill, and plans to install a feed mill and mixer.

Foley, Minn.—Clarence Johnson and Joseph Grow have taken over the management of the Foley Mill & Elevator and started operation Oct. 1. A new grinder and such other equipment as will be found necessary will be installed.

Austin, Minn.—Construction of new elevators for the Froedtert Grain & Malting Co. has started. Barley storage facilities to be built will consist of 12 concrete steel tanks, each 30 ft. in diameter and 120 ft. high. The storage capacity of the new unit will be 600,000 bus. and will partially replace storage facilities heretofore rented at other points in the Northwest, bringing the total elevator capacity here to 1,350,000 bus.

Hadler (Ada p. o.), Minn.—Hadler Co-operative Farmers Elvtr. Co. has been incorporated, capital stock, \$15,000; incorporators, Emil N. Wagner, Fred Wilkens, Leland G. Rill, all of Ada; Victor H. Hanson and Fred Fetting of Lockhart, Minn.

Janesville, Minn.—The J. S. Dill elevator was opened for business recently after being completely remodeled. It will be operated by D. M. Spletstoeser of near Winona. The J. S. Dill Co. bought the elevator from the Farmers Elvtr. Co. last August.

Duluth, Minn.—Directors of the Board of Trade complying with the provisions of the Commodity Exchange Act, have issued a notice barring Hugh S. Gamble and Stephen A. Burke, Chicago, from all trading privileges in the Duluth Board of Trade until further notice by the Sec'y of Agriculture.—F. G. C.

Tracy, Minn.—The Western Grainmen's Ass'n held its regular monthly meeting Sept. 13 in Tracy. Freight charges and truck competition were discussed. George P. Sexauer, Brookings, S. D., spoke briefly on the matter of truck competition and the necessity of maintaining fair margins of profit. It was brot out in the discussion that followed that many truckers are dealing in grain without a license required by the state law. As a means of reducing this evil it was agreed the best method was to report all unlicensed truckers to field men of the local grain warehouse supervisor.

Marshall, Minn.—The Farmers' Elvtr & Milling Co. recently sold all of its assets and business to William Dalrymple & Co. of Minneapolis. This company will continue to operate the elevator and feed grinding business. It will continue to do business using the name Farmers Elvtr. & Milling Co. as a trade name. The elevator and coal business located on the Chicago & North Western right-of-way, formerly owned by the Farmers Co., has been sold by the William Dalrymple Co. to Roy W. Williams. He will continue the business as sole owner and proprietor, using the trade name Farmers Grain Co.

MINNEAPOLIS LETTER

The annual meeting of Archer-Daniels-Midland Co. was held in Minneapolis Oct. 11.

Harry L. Reinshagen, manager of the Cereal By-Products Co., suffered a heart attack Sept. 3 and is in a Minneapolis hospital.

C. D. Sturtevant, pres. of Bartlett Frazier Co., Chicago, has been admitted to membership in the Minneapolis Chamber of Commerce.

New trading hours in the Minneapolis Chamber of Commerce effective Sept. 26 are from 9:30 a. m. to 1:15 p. m. daily; 9:30 to 12:00 noon, Saturday. Effective Sept. 26, with the return to central standard time, radio station WCCO will broadcast Minneapolis Grain Market quotations as follows: Liverpool cables, 9:00 a. m. daily and Saturday; flash quotations of active futures, 10:00 a. m. daily and Saturday; 11 a. m., 11:30 a. m. and 12:30 p. m. daily only; flash bulletin of closing quotations, 1:30 p. m. daily, 12:15 p. m. Saturday. Complete closing futures and cash quotations, plus grain bulletin changes, 2:30 p. m. daily, 12:45 p. m. Saturday. The Liverpool report at 9:00 a. m. is a new service.

MISSOURI

Nevada, Mo.—Fire Sept. 11 damaged Dewey Bros. Co. elevator.

Butler, Mo.—M. F. Arnold recently purchased a Kelly Duplex Hammer Mill with pulley drive.

Hamilton, Mo.—We are preparing to install a corn sheller in our local elevator.—H. H. Green M. & E. Co.

Greentop, Mo.—Shaw Produce Co. recently installed a Corn Cutter and Grader, Kelly Duplex, with motor drive.

Joplin, Mo.—Storage facilities of the Marco Mill & Grain Co., successor to the Brand-Dunwoody Milling Co., have been approved for wheat storage under the C. C. C. loan program.

Holden, Mo.—W. R. Groves, an employe of the Holden Milling & Elvtr. Co. for 35 years, died recently.—P. J. P.

Pattonsburg, Mo.—We recently installed a new Kewanee Truck Lift in our local elevator.—H. H. Green M. & E. Co.

Kansas City, Mo.—Application for membership in the St. Louis Merchants Exchange was made by R. O. McKenna of the Norris Grain Co.

Kansas City, Mo.—C. J. Kucera, traffic manager for Ismert-Hincke Milling Co., Kansas City, and also in charge of millfeed sales for the company, resigned Oct. 1.

St. Louis, Mo.—Thomson & McKinnon, Chicago grain brokers, have opened an office here in the Merchants Exchange. Theophile F. Petri will represent the firm on the floor of the Merchants Exchange. Mr. Petri was with Bartlett Frazier as their representative for a number of years.

Marthasville, Mo.—The Warren Milling and Conoco bulk station was destroyed by fire of unknown origin on Oct. 1, the loss estimated at \$75,000. The elevator contained 30,000 bus. of wheat and several thousand bus. of other grains, a portion of which may be salvaged. Partial insurance covered the loss.—P. J. P.

Martinsburg, Mo.—Charles P. Blackmore of Wellsville has been named manager of the Martinsburg Farmers Elvtr. Co. elevator, succeeding Mort L. Stuart, who resigned. Mr. Blackmore has been in charge of the poultry and feed department of Blattner's Mercantile Co. in Wellsville for nine years. He assumed his new duties Oct. 1.

MONTANA

Winifred, Mont.—C. W. Truesdale's plant sustained considerable damage by high winds early in September.

Kalispell, Mont.—The 250,000-bu. elevator of the Kalispell Flour Mill Co. has been approved for grain storage under the loan program of the C. C. C.

Billings, Mont.—An explosion Sept. 16, the result of a non-standard extension light, caused damage to the old feed mill of Russell Miller Milling Co.

Williams, Mont.—A 25,000 bus., 6-bin annex was built for the International Elvtr. Co. The building was iron clad. The T. E. Ibberson Co. had the contract.

Lindsay, Mont.—C. O. Distad is now manager of the local International Elvtr. Co. elevator, coming from Tauton, Minn., where he managed the National Atlas Elvtr. Co. elevator.

Saco, Mont.—Extensive repairs have been made on the Imperial Elevator Co.'s local plant, which included a new boot tank. The work was done by the Hogenson Construction Co.

Poplar, Mont.—Damage done to the Occident Elvtr. Co.'s elevator by hail-storm has been repaired and a Strong-Scott 68-in. Air Lift installed in the driveway by the Hogenson Construction Co.

McCabe, Mont.—General repairs have been made at the Occident Elvtr. Co.'s plant, including a new driveway, installation of a Strong-Scott Air Lift and new roofs on the entire plant. The Hogenson Construction Co. had the contract.

Whitetail, Mont.—The Occident Elvtr. Co. is making general improvements at its local station, including installation of a Winters direct connected geared head drive with 7½ h.p. Fairbanks motor; a new motor driven compressor, new belt, new Calumet cups, and construction of a new driveway.

Sweetgrass, Mont.—A 25,000 bus., 6-bin annex was built here for the International Elvtr. Co. Grain is handled through conveyors from the old elevator to the annex and individual Fairbanks enclosed motor drives are used. The building is covered with iron and has a solid foundation. T. E. Ibberson Co. had the contract.

Laurel, Mont.—B. B. Hageman, operating the recently re-opened grain elevator on West Main street, has completed the installation of equipment for manufacture of a line of chicken feeds, laying mash and stock food.

Four Buttes, Mont.—The Winter-Truesdell-Diercks Co. had the Hogenson Construction Co. install a Strong-Scott 76-in. Air Lift in its local elevator.

Madoc, Mont.—The Occident Elevator Co. made extensive improvements on its plant including a new driveway, installation of a 20-ton 26-ft. Fairbanks Dump Scale and Strong-Scott Air Lift, installation of motors, Winters Head-drive, new belt and Calumet cups.

NEBRASKA

Stromsburg, Neb.—The small plant of the Stromsburg Milling Co. has been closed down for the season.

Cambridge, Neb.—Rankin Bros. recently purchased a one-ton capacity Kelly Duplex Feed Mixer with motor drive.

Bruning, Neb.—The Bruning Mills has relocated its grinder, improving its grinding system by facilitating its service to customers.

Wellfleet, Neb.—B. A. Dudden and Mack Fulton of Venango are considering building a grain elevator here. Wellfleet has no elevator at this time.

Beatrice, Neb.—The Scoular-Bishop Grain Co., which has had an office in the Arcade block the past few years, has moved to rooms in the Scott building.

Holdrege, Neb.—The Scoular-Bishop Grain Co. moved its offices from the Schrock bldg. to a suite of rooms in the Erickson building. C. R. Sexson is local manager.

Lincoln, Neb.—The railway commission recently canceled the grain warehouse certificate of the Gooch Mill & Elvtr. Co. which has taken out a license instead under the U. S. Warehouse Act.

Snyder, Neb.—The Farmers Union Milling & Grain Co. reorganized and changed its name to the Farmers Co-op. Grain Co., omitting the "Milling" because the ass'n went out of the milling business several years ago.

Thurston, Neb.—An empty elevator owned by the Moseman Lumber Co. was completely destroyed by fire shortly after midnight Sept. 29 at a loss of about \$2,500. The building was located some distance from the Moseman Elevator now in operation.

Crofton, Neb.—The Holmquist Grain & Lumber Co. elevator which opened for business in July, closed Sept. 17 owing to the short corn prospect. P. T. Malone, who was the manager of the elevator, is a candidate for county sheriff of Knox county on the democratic ticket.

Omaha, Neb.—The annual convention of the Nebraska Grain Dealers Ass'n will be held at the Fontenelle Hotel, Omaha, Oct. 27. Chester Weekes, St. Joseph, Mo., chairman of the truck competition com'te of the Grain & Feed Dealers National Ass'n will open the afternoon program with a talk on "Truck Legislation." J. N. Campbell is sec'y of the ass'n and George A. Stites, Union, is president.

Fremont, Neb.—Peter Marr will establish a soybean processing plant here to be known as the Pete Marr Processing Co., located in the former Marr-Hein Candy Co. building, and to be ready for operation about Nov. 1. The first shipment of soybeans was made Oct. 5 from Iowa. It is expected about 200,000 bus. of soybeans will be needed each year to supply the plant, which will be the only one between Des Moines and the Pacific coast, Mr. Marr stated.

Omaha, Neb.—The Omaha Grain Exchange may voluntarily become a "secondary" rather than a "primary" grain market, in order to avoid alleged discriminatory freight rates. Members of the exchange considered the proposal at a meeting Oct. 4 and definite decision is expected at the next meeting after the plan has been thoroughly investigated. Omaha, ranking as a major market, comes under interstate commerce commission ruling whereby a "rate break" has been established and grains consigned thru Omaha must pay on the basis of shipment here plus the rate to ultimate destination. Under the new plan it was believed authority could be secured to ship on thru rates.

STRATTON GRAIN CO.

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Valentine, Neb.—Bill Vanderheiden and Don Higgins have bought the Valentine Feed Mill operated by Joe Vanderheiden & Son and are now operating the elevator and feed business. Mr. Vanderheiden, Sr., handling the implement business. Recently new grinding and mixing equipment was added at the elevator, making a complete service possible for both firm and custom grinding.

Pilger, Neb.—Two local youths, Floyd Asch, 18, and Junior Rees, 17, have admitted they were responsible for starting the fire that destroyed the Farmers Union Co-operative Ass'n's elevator and lumber yard Sept. 26, with a loss estimated by officials at \$30,000, covered by insurance. The boys were stealing gasoline from the elevator's truck, and struck a match that accidentally caused an explosion that started the fire. Investigations made following the blaze disclosed one gasoline can under one of the company's trucks, and another can near by. One of the cans had previously been borrowed by one of the boys and this clue resulted in their arrest and admissions as to what had happened. They had previously explained burns they had received by claiming to have been burned while fighting the flames. The youths were paroled. Rebuilding plans are being considered by the company.

NEW ENGLAND

Warren, R. I.—The John D. Peck Grain Co. has installed a coldmix molasses unit.

Providence, R. I.—The Londonville Milling Co. sustained considerable damage to stock stored in the Terminal Warehouse which was damaged by the high winds Sept. 21.

NEW JERSEY

Norma, N. J.—The Berkowitz Feed Mill has installed a new feed mixer.

Mt. Holly, N. J.—F. R. Boyd has just purchased a one and one-half-ton capacity Kelly Duplex Feed Mixer with motor drive.

NEW MEXICO

Taos, N. M.—The Raton Mills is building a new plant, to include a 36x38-ft. office and warehouse with trackage on the A., T. & S. F.

NEW YORK

Spencer, N. Y.—S. Alfred Seely has installed a new feed mixer.

Marcellus Falls, N. Y.—Allen V. Smith has installed a new feed mixer at his feed plant.

Spencer, N. Y.—The Spencer Co-operative Society has installed a new cold process molasses mixer.

Westtown, N. Y.—Elevator stock owned by C. G. Clark & Son was damaged in a fire recently.

Walton, N. Y.—Spontaneous combustion in gluten feed caused a fire Sept. 20 in the plant of Crawford Bros., Inc.

Buffalo, N. Y.—The National Milling Co. of Minneapolis is equipping its Buffalo plant with a 750-bus. Randolph Oil Electric Grain Drier and expect to have it ready to receive the first shipment of new corn.

Buffalo, N. Y.—George Kublin, formerly cash grain trader for Archer-Daniels-Midland Co., recently resigned and will go to Washington where he will be wheat buyer for the Federal Surplus Commodities Corp.

Andover, N. Y.—The Wellsville Feed & Supply Co. has purchased the business of the Feed Dealers Supply Corp. of Buffalo and H. V. Wallace of Greenwood became manager of the feed mill Oct. 3. Mr. Wallace has had 12 years' experience in the feed business, operating the Greenwood feed mill for the Feed Dealers Supply since 1930. The Wellsville company is owned by William Schnitzler and Elizabeth Coleman of Wellsville. Elizabeth Coleman has also had approximately 14 years' experience in the feed business. A new hammer mill has been installed.

NORTH DAKOTA

Karnak, N. D.—The Farmers Elevator Co. is a new member recently enrolled by the Farmers Grain Dealers Ass'n.

Hong (York p.o.), N. D.—Earnest W. Crandall has succeeded H. W. Hanson as manager of the Farmers Elevator.

Rhame, N. D.—The Farmers Equity Union of Rhame elevator was broken into recently and \$100 taken from the office safe.

Warwick, N. D.—The Valley Grain Co. recently installed a new 15-ton Fairbanks Scale, purchased thru R. R. Howell Co.

Cando, N. D.—H. C. Wold has equipped his elevator with a new 20-ton Fairbanks Truck Scale, purchased thru R. R. Howell Co.

Mandan, N. D.—A new warehouse in connection with the present local plant for the Occident Elevator was built by the Hogenson Construction Co.

Carrington, N. D.—Fire starting in the tower and caused by a friction in the power grinder damaged the local O. & M. elevator Oct. 2. Wheat stored in the structure was ruined.

Foxholm, N. D.—A new driveway has been built and a 20-ton 26-ft. Fairbanks Dump Scale and Strong-Scott Air Lift installed at the Occident Elevator Co.'s plant. The Hogenson Construction Co. had the contract.

Walhalla, N. D.—Extensive repairs have been made on the Farmers Elevator Co.'s plant, including installation of a steel boot tank, a 20-ton 26-ft. dump scale and Strong-Scott Air Lift. The Hogenson Construction Co. had the contract.

Bismarck, N. D.—A new driveway and office have been built for the local Occident Elevator. A 20-ton 26-ft. Fairbanks Dump Scale with two Strong-Scott Air Lifts was installed in driveway, and a 10-ton 22-ft. Fairbanks Truck Scale was installed outside the office for weighing coal. The Hogenson Construction Co. had the contract.

Columbus, N. D.—Extensive repairs have been made on the Occident Elevator Co.'s local elevator, which include a new driveway, installation of a 20-ton 26-ft. Fairbanks Dump Scale and Strong-Scott 68-in. Air Lift. The roofs of the entire plant were covered with fireproof roofing. The Hogenson Construction Co. had the contract.

Niobe, N. D.—Additional elevators in northwest North Dakota recently approved as warehouses for storage of grain under the government's wheat loan program include the Fairview Mill Co.'s local elevator; Farmers Union Grain Terminal Ass'n elevators at Hartland, Ryder, Coulee, Simcoe and Velva; Minnesota Elevator Co.'s elevators at Ryder and Fonda; Osborne McMillan Elevator Co., Balfour; Winter-Truesdell-Dierks Co., Balta; International Elevator Co., Barton; Occident Elevator Co., Bergen; Osborne-McMillan Elevator Co., Butte; St. Anthony & Dakota Elevator Co., Deering; Occident Elevator Co., Drake; Osborne-McMillan Elevator Co., Eckman; Osborne-McMillan Elevator Co., Gardena; Karlsruhe Elevator Co., Karlsruhe; Minnesota Elevator Co., Kongsberg; Kramer Equity Elevator Co., Kramer; Newburg Co-op. Elevator Co., Newburg; Norwich Equity Co-op. Co., Norwich; Minnesota Elevator Co., Sawyer.

New Salem, N. D.—Fire Sept. 25, starting in the elevator cupola, destroyed the grain elevator and adjoining warehouse of the New Salem Mercantile Co. August Weinrich, manager, estimated the loss at \$25,000.

Steele, N. D.—The new seed plant for the Occident Elevator Co., built in connection with the plant, is nearing completion. The structure consists of a feed mill building and adjoining warehouse and separate driveway for loading feed. A new office and driveway for the elevator was combined in the same structure. Extensive repairs were made also on the present plant, including new boot tank and foundation under the elevator. A 20-ton 26-ft. Fairbanks Dump Scale and Strong-Scott 68-in. Air Lift were installed in the elevator driveway. The feed plant is designed and equipped for custom and commercial operation. Equipment consists of a Jacobson Hammer Mill, Strong-Scott triple action Feed Mixer, Eureka Corn Cutter and grader. All equipment including special bin fittings was furnished by the Strong-Scott Mfg. Co. The plant was designed and built by the Hogenson Construction Co.

OHIO

Garrettsville, O.—Ward I. Nichols recently installed a ton Sidney Kwik-Mix Mixer.

Cleveland, O.—G. E. Conkey Co. has opened a new laboratory division for its local plant.

Waynesfield, O.—The Waynesfield Grain Co. has taken over the coal business of May Bros.

Loudonville, O.—Loudonville Equity Exchange recently installed a Sidney Electric Truck Hoist.

Seventeen, O.—The Walter Wohlwend Mill was struck by lightning on Sept. 12. Damage was small.

Fredericktown, O.—Carleton Ewers has purchased a one-ton capacity Kelly Duplex Feed Mixer.

Marion, O.—The Old Fort Mills is installing a 500 bus. Randolph drier for the drying of soy beans.

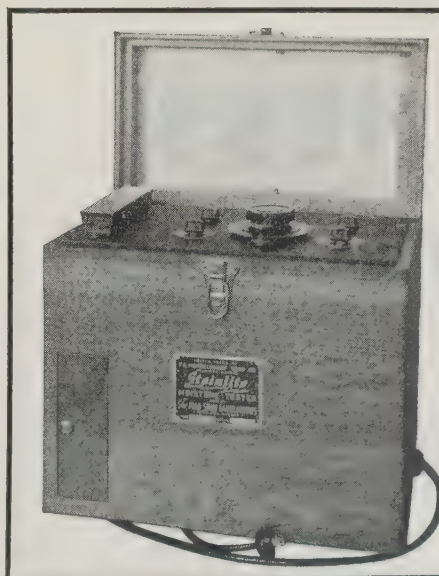
Nevada, O.—Fire in a hay warehouse owned by Dewey Bros. did some small damage early in September.

Orrville, O.—Rutt & Amstutz recently purchased a Kelly Duplex Attrition Mill Blower with motor drive.

Edison, O.—The Edison Mill & Elevator owned and operated by Asa C. Harvey has installed a new corn cracker and grader.—Edison Mills, A. C. Harvey, owner.

Fostoria, O.—The local Sneath-Cunningham Co. elevator, closed here July 1, has been taken over by the Mennel Milling Co. of Toledo. Vincent Lamberjack is the new manager.

Van Wert, O.—O. J. Welker has purchased the Van Wert Grain Co. elevator and the elevator at Ritchie, five miles west of here on the Pennsylvania railroad. The local elevator has 80,000-bu. capacity and is equipped with a Randolph drier. The Ritchie elevator has a 4,000-bu. capacity.



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CHICAGO, ILLINOIS

Chillicothe, O.—Ross County Farm Bureau recently installed two new scales, one a Richardson and the other a Fairbanks Dump Scale, furnished them by the Sidney Grain Machry. Co.

Hatton (Rising Sun p. o.), O.—Eldon Holcomb, 33, Wayne, manager of the Hatton elevator for the last 12 years, died at Fostoria hospital Sept. 13 following a two weeks' illness.

Shauk, O.—The Edison Mill which has been operated by Asa Harvey has been leased to his son, R. H. Harvey, and will be under his management in the future.—A. C. Harvey, owner Edison Mills.

Cleveland, O.—Fred T. Whaley, who formerly represented the Duluth Superior Milling Co. in Boston and is now associated with the recently formed Quality Milling Co., has moved from Boston to Cleveland.

Columbus, O.—The Farmers Elvtr. Co. of Houston and the Odenweller Milling Co. of Ottoville, Kalida and Middlepoint, O., are new members recently enrolled by the Ohio Grain, Mill & Feed Dealers Ass'n.—W. W. Cummings, sec'y.

Lebanon, O.—The Southwestern Division of the Ohio Grain, Mill & Feed Dealers Ass'n will hold a district meeting on Oct. 19, starting with a dinner at 6 p. m. at the Golden Lamb Hotel, Lebanon, after which a general discussion of retail problems will take place. Dinner at 75 cents per plate; mail reservations to Everett Early, Waynesville, O. Everyone interested in the grain and elevator trade is urged to attend.—Everett Early.

Holgate, O.—An alfalfa mill that will cost between \$25,000 and \$30,000 is being planned for Holgate. J. B. Arnold of Minneapolis is interested in the venture. Mr. Arnold perfected a process for dehydrating alfalfa and making meal which has been in use the last eight years. Option has been taken on property east of the Nickel Plate tracks and it is proposed to erect an 80x40 ft. building. If agreeable to the fire bureau the meal plant and warehouses will be under one roof, separated by a fire wall. A new process is used in the reduction of alfalfa which it is claimed eliminates the fire hazard.

OKLAHOMA

Oklahoma City, Okla.—Electrical breakdown in the Hardeman-King elevator early in Sept. did only slight damage.

PACIFIC NORTHWEST

Scio, Ore.—The Scio Mill & Elvtr. Co. has installed a new pellet machine.

Portland, Ore.—The Pacific Co-operative Poultry Producers Ass'n has installed a new pellet machine.

Craigmont, Ida.—The Lewiston Grain Growers has installed a cleaner and treater in its local warehouse.

Condon, Ore.—Charles A. Palmer has replaced Wilfred Parman, who resigned, in the Condon Grain Growers Co-operative Ass'n office.

Tonasket, Wash.—Rubert Bros. have bot the old cannery building on the Great Northern right of way and will use it for grain and farm machinery storage.

Lamona, Wash.—Work on the new elevator for the Odessa Union Warehouse Co. is progressing rapidly. Excavating was started the last week of September.

Selah, Wash.—The Kinne Feed Store has its new mill in operation and is manufacturing the K Brand Scratch feed, a new product of clean grain and an approved formula.

Montpelier, Ida.—Montpelier Flour Mills, recently operated by the Sandberg Bros., which has been closed down for some time, is now being run under the direction of O. A. Michaelis of Logan.

Tekoa, Wash.—The Tekoa Wheat Growers, Inc., has moved its office back to its mill property from the George Merriam building where it has been located for the last year. Foster Clark is manager.

Washtuena, Wash.—The Milwaukee Grain Elevator warehouses have been filled to capacity with stored grain and a temporary warehouse has been erected west of the S. P. & S. buildings of the company.

Walla Walla, Wash.—All warehouses of the Walla Walla Grain Growers have been approved in the government loan program Eugene Kelley, mgr., announced. Warehouses in Umatilla and Walla Walla county are included.

Enterprise, Ore.—Com'ites who have been working on the matter of a co-operative flour mill for Enterprise have secured an option on the Wallowa Roller Mills plant and formulated tentative plans which were presented at a general organization meeting held here Sept. 23 when a permanent board of directors was elected and work of soliciting stock subscriptions started.

Spokane, Wash.—The executive com'ite of the North Pacific Grain Growers, Inc., at a meeting held at the Spokane hotel Sept. 26 on behalf of 8,000 wheat producers in Washington, Oregon and Idaho, vigorously protested to the C.C.C. further delay in the approval of municipal elevators for wheat loans. In the public elevators at Seattle, Tacoma and Portland, 3,000,000 bus. of member wheat are tied up for lack of loan eligibility, because the C.C.C. officials at Washington, D. C., fail to see the difference between high protein wheat at gulf points and low protein grain in the Pacific northwest.

Walla Walla, Wash.—Alfred Tabor, 77, well known former wheat buyer, died Sept. 29. He recently underwent an operation in Portland. He had been a resident of this city for over 50 years, most of the time connected with grain enterprises. At one time he was associated with the Pacific Coast Elvtr. Co.

Rathdrum, Ida.—The Rathdrum Feed Co.'s elevator was destroyed by fire early Sept. 25 at an estimated loss of \$3,500, partly covered by insurance. William F. Schuman, owner, has arranged to purchase the Blackmer buildings and will convert them into living quarters and feed and fuel store as the new location of the Rathdrum Feed Co. Alterations are being made on the building for the purpose.

Coulee, Wash.—Charles A. Bean, 63, died Sept. 27 in a hospital in Almira and was buried at Waterville. Born in California, Mr. Bean came to Waterville in 1906 and operated the Seattle Grain Co.'s warehouse there for several years, later being transferred by that company to Allstown. In 1923 the same company transferred him to Coulee City which has since been his home. Five weeks ago he was stricken with paralysis, which kept him in the hospital until his death. He retired from grain buying three years ago.

PENNSYLVANIA

York, Pa.—The Anderson Grain & Feed Co. has installed a new pellet mill.

Richfield, Pa.—M. B. Glick recently bought a Sidney ton and a half Kwik-Mix Mixer.

Oxford, Pa.—L. E. Green has installed the ton and a half Kwik-Mix he bought recently; this machine a product of the Sidney Grain Machry. Co.

SOUTH DAKOTA

Egan, S. D.—Ed Collins, formerly manager of the Anderson elevator at Round Lake, Minn., has been transferred here.

Canning, S. D.—Fire of unknown origin destroyed the Blunt Grain Co.'s elevator Sept. 23. Elmer Pigney is manager of the plant.

Huron, S. D.—Applications for 1,500 federal wheat loans had been made up to Sept. 20 by South Dakota farmers according to A. R. Barnes, chairman of the agricultural conservation com'ite, and nearly 800 loans had been made on wheat stored in warehouses and terminal elevators. At the above named date 128 elevators eligible to issue warehouse certificates on wheat loans had been approved by the state, this in addition to terminal houses eligible to receive South Dakota wheat in Minneapolis, St. Paul, Duluth and Superior.

Mitchell, S. D.—Farmers Elvtr. Ass'n of South Dakota will hold its 32nd annual convention at Mitchell Dec. 6, 7 and 8. It has been proposed that in planning the program this year it be designed to cover the various problems and phases of elevator operation. With this thought in mind the program com'ite is confident that a program will be arranged from which each manager and each board of directors will be enabled to take home much that will be of advantage to their own elevator. It is the ambition of the com'ite to make this convention a practical group discussion of every problem which elevators must meet in their operations.—C. G. Anderson, sec'y.

SOUTHEAST

Gate City, Va.—Bond & Franklin, Hill, have bot the Hill Station Mills of H. V. Fillenwater.

Rocky Point, N. C.—R. B. Fink has just recently installed a Kelly Duplex Corn Grader.

Mocksville, N. C.—E. P. Foster recently installed a Cleaner, bought from the Sidney Grain Machry. Co.

Republican Grove, Va.—W. V. Cousins, owner of Edgewood Mills, which is located near here, has installed a new hammer mill and corn cleaning equipment.

Birmingham, Ala.—Alexander Dobbins Cecil, 65, widely known grain company official, died of a heart attack Sept. 19. He was at one time associated in the grain business with the late Gov. B. B. Comer, later with E. W. Wilkerson, of Western Grain Co. At the time of his death he was vice-pres. and sec'y of the Alabama Mill & Elvtr. Co.



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TENNESSEE

Jonesboro, Tenn.—Pleasant Valley Roller Mills have installed a Kelly Duplex Corn Sheller.

TEXAS

Lamesa, Tex.—The Lamesa Feed & Hatchery has moved into new quarters in the Kayal building.

San Antonio, Tex.—Thomas C. Edwards is constructing a corn shelling and hay storage plant here.

Brownwood, Tex.—The flour warehouse of the Austin Mill & Grain Co. was damaged by fire early in September.

Amarillo, Tex.—David Merle McCracken, 34, traffic manager of the Farmers National Grain Corp., died Sept. 18, following an illness of several weeks.

Marshall, Tex.—Frank Davis, pres. of the Marshall Mill & Elvtr. Co., has recovered from recent illness and is able to spend a part of each day at his office.

Aiken, Tex.—The Farmers Grain Co. has been organized to conduct a warehouse here; capital stock, \$4,750; incorporators, Ben Quebe, K. Summan, Charles R. Voigel.

Sherman, Tex.—The corn and maize shelling plant of the Kimbell Milling Co. was destroyed by fire, with its contents, the night of Sept. 22. Some damage was done Warehouse I of the Fant Milling Co. on adjacent property.

Fort Worth, Tex.—The following firms were elected to membership in the Texas Grain & Feed Dealers Ass'n: R. L. McClellan Grain Co., Spearman; Hitch Grain Co., Hitchland; Panhandle Wheat Growers, Inc., Panhandle; State Line Grain Co., Hitchland.—G. E. Blewett, sec'y-treas.

Houston, Tex.—It is expected the remodeling of the grain loading gallery at the Houston public grain elevator, which is in progress, will have been completed within a few weeks. Work of moving the loading gallery, formerly located over wharf No. 13, to wharf No. 15 is progressing rapidly, and when completed, Houston will have available facilities for loading two grain ships at the public elevator. In addition there is a private elevator which has loading facilities for one vessel.

UTAH

Richfield, Utah.—The manufacture of feeds at the mill recently completed by the Richfield Feed & Grain Co. here was started Sept. 12. The building, a sheet metal structure, is equipped with the latest type machinery for grinding and mixing feeds. The company will also do custom grinding and mixing. G. R. Buchanan and B. C. Lundquist are owners of the plant.

WISCONSIN

Goodrich, Wis.—The Goodrich plant reopened Oct. 10 for the manufacture of soybean products.

Norske (R. D. Northland), Wis.—Norman Ny-moen has installed a hammer mill at his local warehouse.

Cambria, Wis.—Cambria Produce Co. has installed a one-ton capacity feed mixer, Kelly Duplex, with motor drive.

Boyceville, Wis.—Boyceville Feed Mill has installed a one-ton capacity Kelly Duplex Feed Mixer with motor drive.

Gilman, Wis.—Peter Bootzin of Medford purchased the O. & N. Lumber Co. feed business here and at Stetsonville and Curtiss.

Sun Prairie, Wis.—Wm. F. Renk & Sons recently bought a large cleaner with bagger and elevator from the Sidney Grain Machinery Co.

Black River Falls, Wis.—The name of the New Richmond Roller Mills has been changed to the Black River Falls Feed Mill. Harold McGown is manager.

Oconto, Wis.—The Falls Elevator, lately known as the New Richmond Roller Mills, was opened for business Oct. 3 under the management of Byron Peterson.

River Falls, Wis.—Fire totally destroyed the Alton & Hocking elevator owned by the old Farmers & Merchants Bank, and covered by insurance. The loss is estimated at \$4,000. Mr. Alton is undecided as to whether or not he will rebuild.

Milwaukee, Wis.—The rate of interest for the month of Oct., 1938, has been determined by the finance com'tee of the Grain & Stock Exchange at 5 per cent.

Iola, Wis.—A new 20-inch attrition feed mill driven by twin 10-h.p. motors, has been installed at the Torgerson mill on the west side of town, replacing the old gas-driven hammer mill, which has been sold.

Waupun, Wis.—Fire destroyed the two-story woodshop and three-story feedmill of Breyers Bros. and Whiting Co., causing a loss estimated at between \$20,000 and \$25,000. The blaze is believed to have been caused by spontaneous combustion.

Milwaukee, Wis.—Andrew A. McCabe, 74, retired grain dealer of Milwaukee, died Oct. 2 at the home of his daughter at Lake Beulah. As a member of the Mohr-Holstein Co., commission merchants, he was prominent in business here and in the state.

When Farmers Market Grain

The proportion of yearly marketings by farmers, which is made each month, averages as follows (1923-32 average), according to Nat C. Murray, statistician Clement, Curtis & Co.:

	Wheat	Rye	Corn	Oats	Barley
	%	%	%	%	%
July	18.6	7.4	6.7	11.2	14.5
Aug.	20.1	21.9	6.8	21.1	20.2
Sept.	15.4	20.9	6.7	13.0	15.5
Oct.	10.3	13.9	7.2	9.5	10.9
Nov.	6.8	8.3	9.9	6.3	6.9
Dec.	5.3	6.4	13.2	6.4	5.5
Jan.	4.4	4.9	11.7	5.8	4.4
Feb.	4.2	4.3	10.6	5.7	3.8
March	3.4	3.2	7.5	5.1	3.9
April	2.9	2.6	6.2	4.8	3.5
May	3.5	2.9	6.6	5.0	3.2
June	5.1	3.3	6.9	6.1	7.7

New York Seedsmen Elect Glen

With more than 125 in attendance, the New York State Seed Ass'n held a north-eastern conference of crop breeders at Geneva and Ithaca, New York, Sept. 19 and 20. Most of the time was spent in examining trial plots at the experiment stations.

In a brief talk during the business session at Geneva, Dr. M. T. Munn stressed a need for better lawn grass seeds, some of which contain as much as 60% timothy and redtop, and possibly only 10% to 15% of turf forming grasses.

Officers elected during the business session are: Harry Glen, Rochester, president; Harry Candy, New York, vice-president, and George Weaver, Fredonia, sec'y-treasurer. New directors elected are: Alex Sehlmeier, New York, and George Gardner, Rochester.

Grading of Grain Receipts

Inspected receipts at representative markets in the United States from July 1 to Sept. 15, as reported by the Bureau of Agricultural Economics, were grades as follows, by percentage:

Hard red winter wheat: dark hard 46; hard 54; yellow none; No. 1, 9; No. 2, 29; No. 3, 33; No. 4, 20; No. 5, 8; sample, 1.

Soft red winter wheat: No. 1, 12; No. 2, 41; No. 3, 25; No. 4, 9; No. 5, 5; sample, 8.

White wheat: No. 1, 53; No. 2, 40; No. 3, 6; No. 4, 1; No. 5 and sample, none.

Barley: malting, 22; barley, 78; No. 1, 11; No. 2, 14; No. 3, 56; No. 4, 13; No. 5, 4; sample, 2.

Western Barley: No. 1, 66; No. 2, 22; No. 3, 8; No. 4, 2; No. 5, 1; sample, 1.

Oats: No. 1, 6; No. 2, 28; No. 3, 41; No. 4, 22; sample, 3.

Rye: No. 1, 19; No. 2, 64; No. 3, 15; No. 4, 1, and sample, 1.

Hard red spring wheat: dark northern, 98; northern, 2; red, none; No. 1 heavy, 7; No. 1, 21; No. 2, 19; No. 3, 29; No. 4, 17; No. 5, 6; sample, 1.

Durum wheat: hard amber, 97; amber 3; durum none; No. 1, 64; No. 2, 25; No. 3, 10; No. 4, 1; No. 5, none; sample, none.

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Field Seeds

Earling, Ia.—Altman Brothers Hybrid Seed Corn Co. has installed a new drier in its corn building.

Kansas City, Mo.—The Western Seedsmen's Ass'n will hold its annual fall meeting at the Kansas Citian hotel on Saturday, Dec. 3, announces President Earl M. Page.

Fredericktown, Mo.—J. Mills is continuing his business altho Mills & Waterall will dissolve partnership and close out their seeds, feeds, groceries and furniture stock.

Sioux City, Ia.—Paul R. Nelson, former agricultural agent in Osceola county, has become associated with the sales department of the Michael-Leonard Seed Co. He will travel western Iowa.

Paradise, Pa.—Wm. A. Frew is charged by the Federal Trade Commission with unfair competition by means of lottery, under the names Paradise Seed Co. and Garden Seed Co. of America.

Falls City, Neb.—County Judge E. E. Durfee fined Charles Maze, a farmer east of Falls City, \$10 and costs on Sept. 27 for selling alfalfa seed which had not been properly labeled in accordance with Nebraska's seed law.

Fort Collins, Colo.—Wheat, oats, and barley seed, stored for 10 years at the Colorado State College, showed no material loss of germinating power, but there was a sharp break in the germinating power between the 10th and the 12th year of storage. The germinating power of black amber sorghum was greater after 10 years than immediately following harvest. Yellow dent seed corn may be stored safely for at least six years. "Seed," says the station bulletin, "should be stored in a dry, unheated room."

Seed Movement in September

Receipts and shipments of seeds at the various markets during September, compared with September, 1937, except where otherwise indicated, were:

	FLAXSEED		Shipments	
	1938	1937	1938	1937
Chicago	31,000	148,000	24,000	75,000
Duluth	832,538	351,267	415,928	790
Ft. William	98,125	11,858	4,145	.....
Minneapolis	1,286,120	1,673,240	76,030	60,200
Superior	377,677	215,020	179,000	.....
KAFIR AND MILO				
St. Louis	16,800	18,200	7,000	16,800
Hutchinson	1,400	1,400	.....	.....
Kansas City	49,000	68,600	57,600	43,200
SORGHUMS				
Ft. Worth	32,200	131,600	77,000	82,600
CLOVER				
Milwaukee, lbs.	163,605	558,889	.....	.....
Chicago, lbs.	249,000	266,000	32,000	300,000
TIMOTHY				
Chicago, lbs.	3,023,000	5,986,000	1,689,000	3,507,000
Milwaukee, lbs.	1,575,605	3,274,242	30,240	.....
SOYBEANS				
Chicago	264,000	54,000	75,000	48,000
Indianapolis	2,800	15,400	.....	9,800
St. Louis	4,800	22,400	.....	.....
Toledo	1,400	.....	.....	.....

Directory

Grass & Field Seed Dealers

CRAWFORDSVILLE, IND.
Crabbs, Reynolds, Taylor Co., clover, timothy.

GREEN SPRINGS, OHIO
The O & M Seed Co., seed merchants.

PAULDING, O.
Stoller's Seed House, wholesale field seeds.

ST. LOUIS, MO.
Mangelsdorf & Bro., Ed. F., wholesale field seeds.

Wheat Cleaning and Treating Machine Improves Seed

Charles V. Arnold, manager of the Community Elevator Trust, Hillview, Ill., has purchased a portable wheat cleaning and treating machine.

This machine is now traveling from farm to farm in the Hillview area, earning 7c a bushel for cleaning and treating seed wheat with copper carbonate. Costing around \$700, and requiring the attention of one man constantly thru the wheat cleaning and treating season, plus wear and tear on the truck and 2c a bushel for the copper carbonate, the machine is not considered directly profitable. With the direct profits Manager Arnold is not concerned. Sufficient for him if the machine earns its cost, supports itself, and pays for its depreciation.

"The real profits from the operation of a wheat cleaning and treating machine come from the increased production of wheat thru the use of heavy, plump, clean, treated seed," says Manager Arnold. "Our machine is being carefully routed so as to operate with the greatest efficiency and give a maximum amount of service before seeding time. We expect it to handle about 15,000 bushels of wheat in this, its first, season. The profits will come next year, when our farmers have more and better quality wheat to sell."

The need for seed cleaning and treating service has become most urgent in the central states since the advent, and quick adoption of small combines by the farmers growing wheat. Not too familiar with the proper use of the combine in wheat harvesting, and hurried by other farm work, these farmers have demonstrated a normal tendency to enter their fields a little early in the morning, set their combines a little too low, and harvest wheat and weeds together.

With the binder and threshing machine, which allowed wheat to be held for a time in the shock and in the stack to cure, a large percentage of the weed seeds, particularly the lighter seeds, passed from the threshing machine into the straw stack. In the combine method of harvesting many of these weed seeds, when green, weigh almost as much as wheat, stay with the wheat.

Without adequate cleaning service, farmers who plant wheat from their own fields re-infest their soil with these hardy weed seeds. The weeds reduce the production and quality of the next crop, and the farmer suffers a further loss in the price, since no elevator operator can afford to pay as much for high dockage wheat as he can for premium quality.

Farm fanning mills are not good cleaning machines, compared with the more expensive commercial cleaners that are properly equipped with screens, fans, and brushes, and are power driven to operate most efficiently. These commercial machines can maintain a constant air blast of given velocity to lift and blow out

Cynthiana, Ind.—The portable wheat cleaner and treater, operated by Ed Beste and supplied by the Fuhrer-Ford Milling Co. and the Home Mill and Grain Co. of Mt. Vernon, has cleaned and treated nearly 6,000 bus. of seed wheat in Black township.—W.B.C.

Fargo, N. D.—W. H. Magill, vice-president of Magill & Co., Inc., has sold his interest to P. B. Greving, president. At a recent meeting of the company's directors J. M. Heisler was elevated to vice-president and manager. Mr. Magill also operates the Fargo Seed House.

Evansville, Ind.—The Heldt-Monroe Co. is the new corporate name of The Heldt Co., which became effective Sept. 15, with Ernest Monroe as president and manager; Owen Monroe, vice-president and treasurer, and Carl A. Heldt, secretary. No change has occurred in financial status or personnel.

Ord, Neb.—Ord Seed & Grain Co. is the name of a new firm organized by I. W. Eschliman and E. Kull, which has taken over the business of the former Weekes Seed Co. The new company will make a specialty of pop corn, and handles coal, flour, hay and commercial feeds as well as seed and grain. Mr. Eschliman is manager.

Toronto, Ont.—Officers were re-elected at the recent fall meeting of the Canadian Seed Trade Ass'n here. They are: Wm. Ewing, Montreal, president; R. C. Steele, Toronto, vice-president; Gordon L. Smith, Toronto, sec'y-treasurer. Directors: Wm. Couse, Streetsville; E. F. Crossland, Toronto; K. P. McDonald, Ottawa, and Thos. Rennie, Toronto.

Salem, Ore.—D. A. White, 84, head of the seed and feed business of D. A. White & Sons, passed away at his home Sept. 22, after three weeks' illness. An extensive importer, and one of the largest seed and feed house operators on the West Coast, Mr. White was well known both here and abroad. His two sons, Harley O. and Floyd M., will continue the business.

Clatsop, Ore.—Crews are engaged in harvesting Clatsop's famous bent grass seed crop at the present time. Quality of the crop is believed unexcelled and the yield will probably run around 300,000 pounds. Another encouraging fact is that the price is up about 2 cents above last year, which makes the quotations read 47½ cents a pound. It is found that six million seeds are in a pound, and will cover 500 square feet.—F.K.H.



Community Elevator Trust, Hillview, Ill., has Traveling Seed Cleaner and Treater.

lighter weed seeds, and have brushes moving back and forth across the under sides of the screens to keep them clear and efficient in making separations by size and gravity.

The portable seed wheat cleaning and treating unit operated by the Community Elevator Trust utilizes a copper carbonate or mercury dust measuring and mixing device, and a disc separator in connection with a small commercial cleaner.

The disc separator completes the cleaning job of the cleaner by removing such weed seeds as corn cockle, a difficult weed seed to separate when found in wheat. The dust treating device measures and feeds copper carbonate with the seed wheat into a mixing auger to protect the new crop from smut.

These three units of the Community Elevator Trust's machine are so assembled together that they work in unison and are driven by a single 5 h.p. gasoline engine. The machine can handle from 40 to 60 bushels of wheat per hour, and, efficiently routed, can clean and treat about 20,000 bushels of seed wheat in the 10 weeks between harvest and fall seeding time.

The portable cleaning and treating machine illustrated herewith is one of the many operating in Indiana as the direct result of the splendid work of C. E. Skiver of the Purdue Agricultural Experiment Station. The machine in use at Hillview is a duplicate of the Indiana model.

This wheat cleaning and treating machine is just one of the ways in which Manager Arnold helps the farmers of his community. From time to time he has planted test plots of pure wheat to find the varieties best suited to production of wheat in the Hillview area, and he is always glad to help any farmer procure pure seed wheat of varieties suited to the climate and to the farmer's soil.

During the two months July 1 to Aug. 31 the A.A.A. paid for and diverted 26 farm commodities at a cost of \$1,702,876.34. The largest item was \$592,112.89 for walnuts, for tobacco \$373,518.07, for citrus fruits \$235,749.02, for wheat \$75,935.51, and flour \$24,963.93.

Imports of Forage Plant Seeds

Imports of forage plant seeds during September, and during the three months ended Sept. 30, compared with the like periods a year earlier, as reported by the Bureau of Plant Industry, were as follows, in pounds:

Kind	September		July 1 to Sept. 30	
	1938	1937	1938	1937
Alfalfa	33,500	30,100	141,700	3,100
Bluegrass, Can.	3,100	3,100	38,200	100,500
Brome, smooth	142,100	35,200	153,300	38,200
Clover, alsike	100,500	100,500	100,800	100,800
Clover, crim.	1,187,000	716,300	4,303,800	1,432,300
Clover, red	199,000	158,900	316,500	316,500
Clover, white	78,100	211,500	95,500	425,700
Fescue, meadow	11,200	11,200	11,200	11,200
Grass, orchard	119,900	22,400	257,500	33,900
Mixtures, alsike & timothy	11,000	11,000	11,000	11,000
Rape, winter	1,113,600	181,500	1,526,400	297,000
Ryegrass, Ital.	131,600	131,600	137,100	137,100
Ryegrass, peren.	9,700	54,200	123,500	167,600
Timothy	1,300	1,300	1,300	1,300
Vetch, com.	332,200	1,022,200	868,500	1,538,100
Vetch, hairy	539,100	1,082,400	2,954,200	4,194,600
Vetch, Hung.	176,000	176,000	262,000	262,000
Bentgrass	4,400	1,600	6,200	6,200
Bluegrass, an'l	3,800	3,800	3,800	3,800
Bluegrass, rough	8,100	79,900	32,500	81,000
Bluegrass, wood	1,100	400	1,100	1,100
Clover, subter'n	300	200	300	300
Clover, suckling	23,200	4,300	29,500	4,300
Dogtail crested	600	600	3,500	3,500
Fescue, Chew	111,500	55,100	342,500	260,700
Fescue, other	13,600	15,300	38,500	24,000
Grass, Bahia	6,800	6,800	6,800	6,800
Grass, carpet	12,300	12,300	200	200
Grass, Dallis	86,600	86,600	25,600	25,600
Grass, Guinea	1,000	1,000	1,000	1,000
Grass, rescue	1,100	1,100	21,800	1,100
Grass, Rhodes	2,400	12,500	20,600	14,300
Grass, velvet	12,300	12,300	14,600	500
Medick, black	9,100	5,600	11,600	11,600
Sweetclover, white	34,000	137,300	34,000	1,274,600
Sweetclover, yellow	55,100	65,100	55,100	279,800
Wheatgrass, crested	83,700	7,800	84,900	15,500

Calcium Supplement for Sorghum

By J. M. JONES and W. L. STANGEL of Texas Agri. Exp. Station.

The influence of pulverized limestone or pulverized oyster shell, each of high calcium content, on the gains made by lambs fed sorghum roughage in fattening rations was studied during the period 1928-29 to 1933-34 inclusive. Sorghum silage was not fed in connection with this study until 1931-32. However, lambs fed sorghum silage supplemented with pulverized oyster shell in that and two subsequent tests made feedlot gains comparable to those made by lambs fed alfalfa and showed a desirable finish at the end of the feeding period.

Lambs in the check groups fed alfalfa hay as roughage in fattening rations made significantly greater and more consistent gains than those receiving sorghum fodder without a calcium supplement. Furthermore, the alfalfa-fed lambs showed a lower death loss while on feed and a lower shrinkage in shipment to market than lots that received sorghum fodder. No death losses resulted in the lots fed sorghum silage supplemented with 0.4 ounce pulverized oyster shell per head daily.

In each of the six tests of this series, fattening lambs fed sorghum fodder or sorghum silage as the roughage portion of the ration and supplemented with pulverized limestone or pulverized oyster shell, consumed larger amounts of roughage, made considerably larger gains, finished better, and yielded heavier carcasses than those that did not receive the calcium supplement. These differences in gains were barely significant in the first test (1928-29) at Spur; however, with the exception of Lot 6 (1931-32) at Lubbock, the differences were highly significant each year.

These tests have rather definitely indicated that sorghum silage made from properly matured feed crops, and when supplemented with approximately 0.4 ounce pulverized oyster shell, is more desirable in the lamb fattening ration than sorghum fodder. Sorghum fodder, which often becomes moldy or spoiled in curing, is believed to be particularly fatal to lambs.

Since definite calcium and phosphorus requirements in rations for fattening lambs were not known, the levels of these minerals in the check group fed alfalfa hay were used as an empirical standard. In these tests, pulverized limestone or pulverized oyster shell was fed in varying quantities ranging in amounts from 0.2 to 0.47 ounce per head daily. The calcium lever for sorghum-fed groups receiving 0.4 ounce of pulverized oyster shell per head daily very closely approximated that of the check groups fed alfalfa hay. Likewise carcasses of lambs that had been fed 0.4 ounce of this supplement per head daily graded practically as high as those produced in the alfalfa-fed groups.

The average calcium content in the sorghum fodders used in these studies ranged from 0.21 to 0.34 per cent and in the sorghum silage from 0.07 to 0.11 per cent before supplements were added as compared with 1.01 to 1.18 per cent in the alfalfa hay fed.

The productive energy of the feeds used in these tests was calculated from the experiments by the same methods used in previous tests at the Texas Station. The productive energy secured with the addition of pulverized limestone or pulverized oyster shell in these tests was closer to the calculated productive energy than the productive energy without the calcium supplement (Texas Station Bulletin 461). This means that lamb fattening rations in which sorghum is used as the sole roughage are unbalanced with respect to calcium and are therefore inefficient.

In this series of tests, the total daily intake per 100 pounds live-weight for the check or alfalfa-fed groups ranged from 8.30 to 9.37 grams of calcium and 4.50 to 4.95 grams of phosphorus. In the groups fed sorghum fodder or sorghum silage as the roughage portion of the ration without the pulverized limestone or pulverized oyster shell supplement, the average daily intake per 100 pounds live-weight ranged from 2.36 to 3.94 grams calcium and 4.39 to 5.52 grams phosphorus. When pulverized limestone or pulverized oyster shell was added to the ration in which sorghum fodder or sorghum silage had been included as the roughage, the average daily intake per 100 pounds liveweight ranged from 5.51 to 10.03 grams calcium and 4.27 and 5.46 grams phosphorus.

The average daily consumption of sorghum fodder per lamb during the fattening period ranged between 1.1 and 1.7 pounds as compared with 2.2 and 2.9 pounds of sorghum silage. The inclusion of the calcium supplement increased the daily consumption of fodder by approximately .1 pound while the silage consumption was increased approximately 0.5 pound.

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Elevator Manager Runs Test Plots on Hybrid Corn.

Every Saturday afternoon since the wheat and oats rush is over, Manager Charles V. Arnold, of the Community Elevator Trust, Hillview, Ill., has driven out to a 2½ acre test plot of hybrid and open-pollinated corn about a mile from town. Here he compares 24 hill replicates of 25 varieties of hybrid, and two varieties of open-pollinated corn, growing side by side under exactly the same conditions.

Manager Arnold cooperates with the University of Illinois in running this test plot for corn. The university supplied the hybrid seed, purchased from commercial stocks, and Manager Arnold included some seed of his own, furnished the land for the test, and supervised the planting, and tilling.

This year's test field is of "made dirt" which had been green fertilized with sweet clover planted after harvesting of a wheat crop in 1937, and turned under this spring.

About two acres of this year's field is planted with samples of seed furnished by the University of Illinois, except for samples of two varieties of hybrids of Manager Arnold's own selection, and a half acre is devoted to commercial samples of hybrid corn and open-pollinated corn from a prominent commercial seed house.

All samples were machine planted on May 11. Each sample was planted in six 24 hill replicates, 3 kernels to the hill. The six replicate test plots were staggered across the field so that averaging of the yields at shucking time would give an honest comparison of the 25 hybrid corn and two open-pollinated varieties being tested. Each replicate was planted two hills wide and 12 hills long.

A blank row was left between each of the replicas for convenience in checking. Manager Arnold checks the plot each week, carrying a fresh map of the field on which he makes his notes. To avoid confusion and make a fair comparison he checks the growing samples of a different factor each week, timing these factors with the development of the corn, and repeating on them as necessary. The factors are general appearance, stage of development, number of ears to a hill and to a stalk, sizes of ears, lodging, resistance to disease, chinch bug, and root louse, length and strength of shanks, and early maturity. At harvest time the yield from all replicas of each sample will be bulked and weighed so as to give a fair average, and production will be converted into a per acre yield basis.



Manager Charles V. Arnold, Community Elevator Trust, Hillview, Ill., examines his check-up on hybrid corn test plot.

Manager Arnold has a double purpose in running this test plot. As manager of the Community Elevator Trust, operating elevators at Hillview and at Grand Pass, he is interested in increasing the production of grain in these communities. As a farm manager, supervising 20 tenants on 4,800 acres of land owned by his principals, J. Omer Cole, of Peru, Ind., and Emil Schram, Jr., of Hillview, Ill., and 15 tenants on approximately 5,000 acres more that are owned by other landlords, he has the same interest.

In this year's test, and in a similar test last year, Manager Arnold included samples of the average of open-pollinated corn grown in his community. This is done so that the tenants may see for themselves the differences that show up.

Manager Arnold went a step farther last year. To each of 23 of his tenants he gave a bushel sample of hybrid corn with the proviso that this sample be planted in the same field with open pollinated corn, and that an equal area of the open-pollinated corn be picked at the same time that the hybrid was picked, production from each of these equal areas to be delivered to the elevator at the same time for weighing and comparing.

"It was not a particularly good variety of hybrid seed," he says, "because hybrid seed corn was hard to get and we could not be too selective. But the results were so overwhelmingly in favor of the hybrid that less than a hundred acres out of the nearly 10,000 acres in our farms were planted with open-pollinated corn this spring.

"In the 1937 experimental field the best hybrid yielded 117 bushels per acre, while the best open-pollinated strain yielded only 89 bus. The average yield of open-pollinated corn in last year's plot was 21 bushels per acre less than the average of the hybrids. The comparative results from bushel plantings by 23 of our tenants were very much the same.

"Farmers in this territory do not take readily to new ideas. They are slow to conviction. Their bushel plantings of hybrid corn, however, quickly convinced all but two of our tenants of the superior producing ability of hybrids.

"These two farmers refused to take the results obtained by their neighbors. It was nearly Christmas time before they shucked their own comparative plantings. The one of them discovered that his hybrid yielded 67 bushels per acre compared with 52 bushels per acre for his open-pollinated, the planting having been made on what we generally consider poor land.

"The other, who made his comparative plantings on better land, found the hybrid yielded 80 bushels per acre, while the open-pollinated yielded only 60. This evidence from their own fields could not be refuted, and these two farmers joined the others in their enthusiasm for hybrids.

"Farmers planting our bushel samples," says Manager Arnold, "were left to their own judgment regarding the time of picking and shucking these plantings. Some picked early and some picked late. We found that the comparative lots of early picked hybrid and open-pollinated corn weighed almost the same, but a marked difference showed up in their moisture contents. Open-pollinated corn on Oct. 1 carried 21 per cent moisture, while the hybrid carried only 13 per cent. Late in the season, when the open-pollinated corn had dried out, the difference in yield showed up.

"The hybrid corn consistently proved itself to grade better than the open-pollinated. We

[Continued to page 334.]

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Grain & Feed Journals

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Feedstuffs

Dayton, O.—Ohio Feed Merchants Day, an annual feature of the Ohio Agricultural Experiment Station, will be held here on Nov. 1 to encourage greater attendance from the southwestern quarter of the state. The feed and allied trades are invited to attend all sessions.

Washington, D. C.—The 30th annual convention of the Ass'n of American Feed Control Officials will be held at the Raleigh hotel Nov. 17-18. Official action will be taken on 17 tentative definitions of feed ingredients, and eight proposed definitions will be discussed.

The Pecos Valley Alfalfa Mill Co., Rupert, Idaho, was fined \$30 on a plea of guilty to having shipped from Idaho into Wisconsin alfalfa meal labeled in part: (Tag) "Pecos Special * * * Alfalfa Meal * * * Made by the Pecos Valley Alfalfa Mill Co., Hagerman, New Mexico," branded "Alfalfa Meal Made from Alfalfa Hay" and "Guaranteed Analysis, Protein 13.0% * * * Fat 1.5% * * * Fiber 33.0%," but which contained more fiber and less protein and fat.

Stillwater, Okla.—Half as much feed produces twice as much milk, claims Dairyman Otto Gray for his herd of seven midget cows and one bull. His midgets, developed from undersized cow and a normal Hereford bull, stand from 30 to 37 inches high, and weigh from 450 to 500 lbs., or little more than half as much as normal sized Jerseys. One of them, he claims, gives five gallons of milk daily; another averaged 41 lbs. of milk daily for 11 days, approximately equalling her own weight of 455 lbs.

Grain Sorghum Heads Cheap Feed

By A. D. JACKSON, Texas Agri. Exp. Station

Low gains in drylot feeding result in high cost of gains unless the feeds are very low in price. In this connection, let us note the present prices of grain and silage. Grain sorghum heads are priced at \$5 per ton at certain west Texas points, cottonseed meal at \$23 to \$25, and silage is priced at \$3 per ton and at a lower price would probably return little profit to the grower. At the above prices, grain sorghum heads are the outstandingly cheap feed. On basis of dry matter alone, and not considering total feed nutrients, grain sorghum heads at \$5 per ton are almost twice as cheap as sorghum silage at \$3 per ton, since the silage consists of approximately 70 per cent water. Obviously, the present situation indicates that Texas cattle feeders should feed as much of the heads as possible, say 15 to 20 pounds per head daily to 700-pound steers, and minimum amounts of cottonseed meal and silage with 3 pounds of cottonseed meal being considered a minimum amount to be fed with a ration consisting of 15 to 20 pounds of ground grain sorghum heads and 10 pounds of silage.

At the present price of feeds, it is rather clearly indicated that the commercial feeders will use rations high in grain and will not be interested in rations high in roughage and cottonseed meal. It is also indicated that the farmer with silage to market can use considerable amounts of grain with his silage in order to market his silage to better advantage. While both classes of feeders may be reluctant to buy cottonseed meal to balance their ration, they cannot afford the false economy of attempting to fatten their cattle without it.

Feeding Experiments

DIACALCIUM PHOSPHATE or steamed bone flour fed as supplements to sheep on a basal diet markedly deficient in phosphorus, caused a rapid return to a normal blood picture with respect to serum inorganic P, serum Ca and serum phosphatase. Balance experiments indicated that, with the given diet, P supplied in the form of dicalcium phosphate was utilized to an extent approximately 50 per cent greater than when supplied in the form of steamed bone flour. There was also some indication that the former supplement exerted a more favorable influence on N assimilation than did the latter.—W. Godden and S. C. Ray, *Empire J. Exp. Agric.*

ADDITIONS of varying amounts of ground limestone (high Ca content) to a dry lot ration of maize, soybean oil meal, alfalfa hay and iodized salt showed that the addition of 1.25 per cent, giving a Ca:P ratio of 1.9:1, proved to be most economical as regards food consumption per lb. live weight increase. Addition of 1.5 per cent steamed bone flour, giving a Ca:P ratio of 1.1:1, proved even more economical than addition of limestone. Similar results were obtained on pasture and when linseed meal and wheat middlings replaced the soya bean meal as a source of protein.—G. Bohstedt, J. M. Fargo and W. A. King, *Proc. Amer. Soc. Animal Prod.*

Protein Supplements for Ground Wheat

A series of experiments with protein supplements for ground wheat when fed to poultry are summarized in *Poultry Science* as follows:

The growth-promoting properties of certain rations containing large percentages of ground wheat was significantly improved by increasing the amount of meat and bone scraps from 12 to 16 per cent, but higher levels gave no appreciable increase in growth.

No appreciable increase in rate of gain in weight resulted when 10 to 25 per cent of ground wheat was replaced with wheat bran. The same was true when 10 per cent each of bran and middlings were used to replace an equal amount of ground wheat. The basal ration included 16 per cent of meat and bone scraps, 5 per cent of dried skimmilk, 3 per cent of alfalfa loaf meal, a vitamin D supplement, and enough ground wheat to adjust to 100 per cent.

No improvement in growth-rate was obtained when the amount of meat and bone scraps was increased from 15 to 21 per cent and the dried skimmilk increased correspondingly to maintain a ratio of three of meat scraps to one part of dried skimmilk. This was true when no bran was included in the ration; but with 15 per cent of bran replacing an equal amount of ground wheat, an increase in rate of gain in weight was obtained when the amount of meat and bone scraps and dried skimmilk was increased from 15 and 5 per cent, respectively, to 18 and 6 per cent of meat and bone scraps and dried milk.

In rations containing 51 per cent or more of ground wheat and either 5 or 10 per cent of meat and bone scraps the growth of chicks to eight weeks was significantly increased by using 20 instead of 10 per cent of soybean oil meal, but higher levels of soybean oil meal gave no further increase in growth.

A combination of about 43 parts each of ground wheat and ground yellow corn with 10 per cent of meat and bone scraps, 3 per cent of alfalfa leaf meal, and liquid skimmilk ad libitum

resulted in somewhat better growth than when the grain part of the ration was composed of about 86 per cent of ground wheat. This was, however, only true with the males, there being practically no difference in the rate of gain with the females.

Southern Feed Men Hear About Vitamins

A "school" on the "Whys and Wherefores" of vitamins in poultry feeding, conducted by Dr. L. C. Norris, head of the poultry department of Cornell University, and illustrated with blackboard sketches, and stereopticon slides, was a feature at the 13th annual convention of the Southern Mixed Feed Manufacturers Ass'n, held at Asheville, N. C., Sept. 29-30.

"While tremendous strides have been made in our studies of vitamins," said Dr. Norris, "and some vitamins are successfully manufactured synthetically, the absence of a standard terminology has left a chaotic condition in the field of vitamins." In addresses at both morning sessions of the convention, Dr. Norris reviewed the discoveries in vitamin feeding, and the uses of vitamins in poultry production.

Dr. Norris recommended manganese as a specific for perosis or slipped tendons. Quoting from scientific research data, he stressed the need for manganese in development of chicks, and for subsequent egg production. He recommended that manganese be included in poultry feeds in the sulphate form, at the rate of approximately four ounces per ton. "Even when fed at higher levels," he said, "it can do no harm and may be beneficial."

More profitable production of hogs in the South, with particular reference to North Carolina, was important to Prof. Earle H. Hostetler, of the University of North Carolina. A retarding influence of hogs, he said, is that most of the corn raised in the state goes into human consumption. But he believed feed manufacturers, producing balanced hog rations, might encourage hog production.

VICE-PRES. A. C. PETERSON, Memphis, Tenn., presided at the annual business meeting, held Thursday night at Grove Park Inn. This session pledged adherence to the merchandising council sales plan, discussed the probable effect of the new wage and hour law, and elected officers for the ensuing year.

The new officers are: A. C. Peterson, Memphis, Tenn., pres.; George G. Keith, Nashville, Tenn., vice-pres.; J. B. Edgar, Memphis, treas.; E. P. MacNicol, Memphis, was continued as sec'y. To the executive com'te were elected: C. B. Fretwell, Spartanburg, S. C.; H. L. McGeorge, Memphis; Wesley Jones, Statesville, N. C.; A. F. Seay, St. Louis, Mo.; Wayne Longmire, Knoxville, Tenn.; A. T. Pennington, Atlanta, Ga., and R. E. Barinowski, Augusta, Ga.

R. M. FIELD, Chicago, of the American Feed Manufacturers Ass'n, spoke on the new wages and hours law that becomes effective Oct. 24. "Whatever your employment schedule is to be, get it set up and in good working order before the new law becomes effective," he advised.

The ass'n's annual golf tournament was rained out on Thursday and the qualifying round was delayed until Friday, with the annual banquet following in the evening.

Feedstuffs Movement in September

Receipts and shipments of feedstuffs at the various markets during September, compared with September, 1937, in tons, were:

	Receipts		Shipments	
	1938	1937	1938	1937
*Baltimore	4,140	3,483	.....	.....
*Boston	297	1,006	.....	82
*Chicago	10,702	6,570	33,721	31,624
Kan. City	8,925	4,850	32,375	28,550
*Milwaukee	135	525	4,900	1,955
*Minneapolis	1,626	2,128	25,370	28,495
*Peoria	10,060	9,240	11,930	10,680

*Millfeed.

Vegetable Proteins in Poultry Rations

By C. L. MORGAN, head of Poultry Department, Clemson Agricultural College, before Feed Manufacturers' Nutrition School, Athens, Ga.

The term vegetable proteins in animal feeding is applied mainly to those by-products of oil-bearing seeds, such as linseed oil meal, soybean oil meal and cottonseed meal, which contain relatively high percentages of crude protein. In contrast to the vegetable protein feeds are meat scraps, fish meal, tankage, and milk by-products known as animal proteins. In poultry feeding animal proteins have been more commonly used to supplement the cereal grains and their by-products in the compounding of rations for both growing and laying birds. From a great mass of data compiled from research in poultry feeding at numerous experiment stations, the animal proteins have been found more or less uniformly to be superior to the vegetable proteins for such purpose.

Early experiments in the use of soybean oil meal and cottonseed meal to replace animal proteins in laying rations showed marked deficiencies in the vegetable proteins for this purpose. Egg production with the vegetable protein supplemented rations was little or no greater than that from the unsupplemented cereal grains and their by-products. Similar rations supplemented with animal proteins produced more than twice as many eggs from a like quantity of feed consumed.

The failure of vegetable proteins to satisfactorily supplement a ration of cereal grains and their by-products for laying hens was

explained by early investigators on the basis of the type of protein contained in the vegetable proteins. The fact that vegetable proteins were relatively low in important mineral elements was overlooked. A comparison of some animal and vegetable proteins in mineral content are shown in the following table as obtained from various sources:

	MINERAL CONTENTS			
	Calcium	Phosphorus	Sodium	Chlorine
Meat meal	3.30	1.79	1.83	2.69
Dried milk	1.34	0.98	0.49	0.94
Fish meal (herring)	4.37	2.85	0.74	0.47
Cottonseed meal	0.20	1.20	0.046	0.02
Soybean oil meal	0.26	0.66	0.04	0.02

By the addition of a calcium and phosphorus carrier and sodium chloride to laying rations supplemented with vegetable proteins, egg production from such rations practically equaled those supplemented with animal proteins. The average results of three trials in which vegetable proteins plus a mineral addition were compared with meat scraps for supplementing laying rations are shown in the following table.

Protein Supplement	Eggs Per Hen	Feed Consumed		Feed Cost Per Dozen Eggs
		Grain Lbs.	Mash Lbs.	
Meat scraps	157.5	38.4	35.1	8.4
1/2 meat scraps				
1/2 cottonseed meal	140.8	36.8	32.9	8.5
Cottonseed meal	135.9	36.8	32.9	8.5
Soybean oil meal	139.3	37.8	31.1	8.4
Peanut oil meal	142.5	37.2	33.9	8.4

From other sources results with the vegetable proteins in laying rations have usually shown these feeds to be only slightly less efficient than animal proteins from the standpoint of egg production. With usually prevailing prices for these feeds as compared with meat scraps and other animal proteins their use has been found economical.

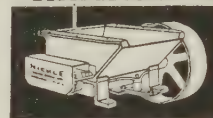
Data, although not so complete, on the use of combinations of vegetable and animal proteins for supplementing laying rations indicate that probably one-fourth of the protein supplement of a laying ration may be of vegetable origin. With more complete information on the mineral and vitamin re-

quirements of poultry it appears that both of these requirements may have been important factors in previous results obtained with vegetable proteins.

Further studies on the use of vegetable proteins in laying rations in combination with animal proteins supplemented as to mineral and vitamin requirements should be made to properly evaluate these sources of protein. Considerable use should be made of these feeds, excepting cottonseed meal as will be noted later, in laying rations.

Effect on the quality of eggs produced has been noted in studies with vegetable proteins. Eggs produced on rations containing cottonseed meal deteriorate on holding and for this reason the use of this vegetable protein in commercial laying rations would not be advisable. Soybean oil meal

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Feed Prices

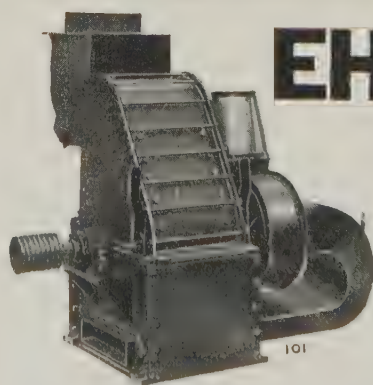
The following table shows the closing bid price each week for December futures of standard bran and gray shorts, spot cottonseed meal, soybean meal and No. 1 fine ground alfalfa meal, in dollars per ton and No. 2 yellow corn and No. 2 yellow soybeans in cents per bushel:

	Minneapolis		Kansas City	
	Bran	Midds	Bran	Shorts
July 16.....	16.00	19.00	13.90	15.50
July 23.....	15.00	18.00	13.50	15.75
July 30.....	14.50	16.50	13.50	14.75
Aug. 6.....	14.25	15.00	12.90	14.20
Aug. 13.....	13.50	13.50	12.50	13.75
Aug. 20.....	13.50	13.75	12.40	13.85
Aug. 27.....	12.50	12.50	12.65	14.00
Sept. 3.....	13.00	13.50	12.50	14.75
Sept. 10.....	12.75	13.50	12.00	13.95
Sept. 17.....	13.50	15.00	13.50	15.50
Sept. 24.....	14.00	15.50	13.50	15.75
Oct. 1.....	13.50	16.00	12.10	14.25
Oct. 8.....	13.00	14.50	12.50	14.50

	St. Louis*		Chicago	
	Bran	Shorts	Soybeans	Meal
July 16.....	16.75	17.60	93	26.70
July 23.....	16.75	18.10	94	26.70
July 30.....	16.45	17.00	90	26.70
Aug. 6.....	16.10	16.50	89	25.20
Aug. 13.....	15.60	16.10	84	24.70
Aug. 20.....	15.45	15.90	84 1/2	24.50
Aug. 27.....	15.75	16.15	81	24.50
Sept. 3.....	15.10	16.10	84	24.20
Sept. 10.....	15.60	16.80	81 1/2	24.00
Sept. 17.....	16.70	17.75	87 1/2	25.50
Sept. 24.....	16.60	18.00	85	26.00
Oct. 1.....	15.35	16.75	76	27.00
Oct. 8.....	15.65	16.50	76 1/2	25.20

	Ft. Worth		Kansas City		Chicago
	Cottonseed	Meal	Alfalfa	Corn	
July 16.....	24.50	23.50	18.00	59 3/4	
July 23.....	25.50	23.75	18.00	59 1/4	
July 30.....	25.50	23.35	18.00	58	
Aug. 6.....	25.50	23.35	18.00	53 3/4	
Aug. 13.....	25.00	21.75	18.00	53 1/4	
Aug. 20.....	25.00	21.10	18.00	54 1/4	
Aug. 27.....	24.50	20.60	18.00	55	
Sept. 3.....	23.50	20.50	18.00	51 1/4	
Sept. 10.....	23.50	21.00	18.00	53 3/4	
Sept. 17.....	23.00	21.10	18.75	53	
Sept. 24.....	23.00	21.00	18.75	53	
Oct. 1.....	24.00	21.50	18.75	50	
Oct. 8.....	24.50	21.00	19.00	47 1/2	

* St. Louis bran, basis Chicago delivery; Shorts St. Louis delivery.



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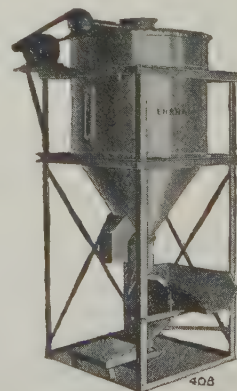
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and peanut oil meal do not affect the keeping quality of eggs, therefore these feeds may be safely included in laying rations.

In starting and growing rations for chickens, it appears that vegetable proteins may be used in greater amounts than usually found in such rations. Experiments on the use of 41 per cent protein cottonseed meal have been concluded at the South Carolina Experiment station which show that this feed may be used to replace up to three-fourths of the meat scraps in starting rations if proper adjustments are made to provide adequate minerals and vitamins. The rations used were composed of ground yellow corn, wheat middlings, meat scraps (50 per cent protein), alfalfa leaf meal, dried whey, steamed bone meal, salt and a cod liver oil concentrate. A standard starting ration using the above ingredients excepting dried whey but containing dried skim milk was used as a check in this experiment. All rations contained 18 per cent protein. The results of two trials are summarized in the following table:

Pen	Protein Supplement	Weight of Chicks—8 Weeks	
		1st Trial Gms.	2nd Trial Gms.
1.	Meat scraps plus dried skim milk.....	560	569
2.	Meat scraps	543	522
3.	$\frac{3}{4}$ meat scraps: $\frac{1}{4}$ cottonseed meal.....	617	622
4.	$\frac{1}{2}$ meat scraps: $\frac{1}{2}$ cottonseed meal.....	597	601
5.	$\frac{1}{4}$ meat scraps: $\frac{3}{4}$ cottonseed meal.....	584	555

Mortality of the chicks was negligible and in no way related to the ration fed. The feed per unit of gain was nearly the same for all pens, but with slightly more feed consumed by the chicks receiving larger amounts of cottonseed meal. The pullets of this experiment were continued from the eighth week to 18 weeks of age on growing rations similarly supplemented but containing only 15 per cent protein. On the ration in which three-fourths of the meat scraps had been replaced by cottonseed meal growth was slightly reduced, but still satisfactory. On all other rations growth to 18 weeks was practically equal. For both starting and growing rations these results indicate that cottonseed meal may be safely substituted for one-half of the meat scrap.

Experiments with chicks at the Virginia Agricultural Experiment station on the use of peanut oil meal show that this feed may replace up to one-half of the meat scraps if proper mineral adjustments are made to meet the requirements of the chicks. Recent results from the Alabama Agricultural Experiment station show that peanut meal may replace a similar portion of the meat scraps in the chick ration. Data from the Nebraska Agricultural Experiment station show that the growth of chicks to eight weeks was practically the same when a combination of vegetable proteins, soybean oil meal, linseed oil meal and cottonseed oil meal composed one-half of the protein supplement as compared with the use of larger quantities of animal proteins.

In the use of vegetable proteins in poultry rations certain considerations as to composition of materials and method of preparation are important. It appears that the high fat or oil content of these protein feeds reduce growth rates of chicks. The use of whole ground peanuts without shells at the Alabama Agricultural Experiment station has not given as good growth with chicks as the peanut oil meal. At the Delaware Agricultural Experiment station the use of ground soybeans has resulted in reduced chick growth and retarded egg production. Properly prepared soybean oil meal has been found satisfactory when used in amounts as previously indicated in this discussion. High temperature cooking of soybeans in the process of oil extraction as reported by the Wisconsin Agricultural Experiment station

produces meal of higher feeding value than when lower temperatures are employed.

Comparisons of high and low protein cottonseed meal for chick growth are not available, but it seems logical that higher percentages of protein in this product would be more desirable. Linseed oil meal has been used in poultry rations in only limited amounts.

The by-products of cereal grains have not been included in this discussion. Since these feeds contain proteins of the same quality as that found in cereal grains their value as protein supplements for these grains is obviously not as great as that of the vegetable proteins, soybean oil meal, peanut oil and cottonseed meal.

From data available on vegetable proteins it is evident that, rationally used, these feeds have an important place in poultry rations. Greater use of vegetable proteins in commercial poultry rations should reduce the costs of these rations without a reduction in their efficiency.

State Feeding Stuffs Reports

Columbia, N. C.—“Yearbook of the Department of Agriculture, Commerce & Industries of the State of South Carolina, 1936-37,” lists South Carolina's feed manufacturers and names firms whose feeds were sampled during the year ending July 1, 1937. A great deal of miscellaneous information about South Carolina agriculture, the warehouse system, and seed and feed inspection service is given.

Amherst, Mass.—“Inspection of Commercial Feedstuffs,” Bulletin No. 89, of the Massachusetts Agricultural Experiment Station, shows that 216 manufacturers and dealers registered 1,124 brands of feed during the year ending Sept. 1, 1937; that 1,791 samples of feedingstuffs had been collected and analyzed; that 158 dealers in 96 towns were visited by a feed inspector at least once. The bulletin names 58 samples of feed from 36 manufacturers that failed to come within 1 per cent tolerance of their guaranties.

Providence, R. I.—The results of analyses of both feeds and fertilizers are combined in Contribution No. 513 of the Rhode Island Agricultural Experiment Station, “Inspection of Feeds and Fertilizers,” covering the period Jan. 1 to Sept. 1, 1937. It shows that 860 brands of commercial feeds were registered with the Department of Agriculture & Conservation, in charge of enforcement of Rhode Island's 1936 feed law, which is based on the Uniform Feed Law recommended by the Ass'n of American Feed Control Officials, during the period covered. The results of analysis of 446 samples of stock, dairy, and poultry feeds, the products of 107 manufacturers, are given in the tables and an extensive list of firms whose samples

failed to meet their guaranties in one or more constituents, is given. This bulletin also covers dog foods.

Burlington, Vt.—Bulletin 436 of the Vermont Agricultural Experiment Station, titled “Commercial Feeding Stuffs,” credits Vermont's feed inspection service with collecting 2,267 samples, representing 654 brands of feeds, from dealers' stocks during December, 1937. Of the 202 brands of unmixed feeds sampled, only 18 failed to meet fully their guaranties; and of the 452 brands of mixed feeds, only 28 failed to meet their guaranties. Shortages in protein and fat guaranties were found in only 7% of the samples; and in all cases where an inferior product was used in a mixture, the product was named on the tag.

Augusta, Me.—In its “Official Inspections 164” the Maine Agricultural Experiment Station sets forth that out of 999 samples of alfalfa meals, animal products, beet pulps, brewers and distillers dried grains, corn by-products, corn and oat feeds, oil seed meals, proprietary feeds, wheat products, and miscellaneous feeds sampled and inspected in the period July 1, 1936, to July 1, 1937, only 19 were found to be 5% or more deficient from their protein guaranties. Of these, 3 were alfalfa meals, one was beef scrap, one brewers and distillers dried grains, one corn and oat chop, one stock feed, five poultry feeds, one bran, one feed flour, two middlings, two mixed feed, and one pulverized oat hulls.

Liberal Protein Feeding Pays

Liberal feeding of protein concentrates with farm feed to hogs earns handsome dividends, according to studies by M. L. Mosher and H. C. M. Case of the Illinois Agricultural Experiment Station. In bulletin 444 of the station they say:

A return of only \$117 per hundred dollars' worth of feed fed to hogs was realized on the farms where less than 2 pounds of protein feed was fed with 100 pounds of grain. On the other hand, on the farms where 2 to 4 pounds of protein feed was fed, \$120 was received, and on those where 6 pounds or more was fed, about \$124 was realized per hundred dollars' worth of feed fed.

Similarly on those farms where less than 2 pounds of protein feed per 100 pounds of grain was fed, 460 pounds of feed for each hundredweight of pork produced was required. But on the farms where protein feed was fed at the rate of 6 or more pounds per 100 pounds of grain, only about 420 to 430 pounds of feed was required for each hundredweight of pork produced.

The C.C.C. reported loans of \$22,853,341 on 47,080,006 bus. of corn as of Sept. 29.

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Poultry Feeds and Feeding

Palmer, Mass.—“New England Turkey Field Day” was scheduled to be held at Elbow Brook Farm near here on Oct. 12. Featured was turkey killing and dressing demonstrations, and an address on successful breeding, feeding and marketing of turkeys.

Ithaca, N. Y.—Dr. L. C. Norris, head of the poultry husbandry department of Cornell University, has been awarded the Borden gold medal, which carries with it a certificate, and \$1,000 for meritorious research in poultry science. The award was made by a special com'te of the Poultry Science Ass'n.

A quantitative biological assay of vitamin K is suggested by S. Ansbacher of the Squibb Institute for Medical Research, based on the blood clotting time of chicks fed vitamin K concentrate after having been kept for two weeks on a vitamin K deficient diet. Ansbacher says: Such a method has been used successfully with several hundred chicks and will be reported in full in the near future. This method would seem to fulfill the requirements of standardization studies for which there is an actual need, as pointed out recently in a paper by Smith, et al. on the effect of bile and vitamin K on bleeding tendency and prothrombin deficiency.

Alfalfa Meal Provides Vitamin A for Hens

Dehydrated alfalfa meal as a source of carotene to provide the vitamin A for laying hens was the subject of an experiment by J. K. Williams, C. E. Lampman and D. W. Bolin, at the University of Idaho. They report upon its efficiency as follows:

Carotene fed at 0.25 mgs. per bird per day proved adequate to promote normal egg production and to prevent development of deficiency lesions. The carotene was provided in the form of dehydrated alfalfa of known quantity and specific amounts needed to provide levels varying from 0.1 mgs. to 0.5 mgs. per bird per day. The 0.1 mg. proved markedly inadequate. The 0.5 resulted in slight although statistically significant, increases in egg production and hatchability. The level of 0.25 mgs. of carotene per bird is equivalent to approximately 295 Sherman Vitamin A rat units.

Chick Disease from Feeding Dried Egg White

By W. C. TULLY, Iowa Exp. Station, Ames.

Chicks much stunted in growth and suffering severely from the pellagra syndrome when fed a complete ration for a short time grow at a very rapid rate and all external signs of the nutritional disease disappear.

When a ration containing 15 per cent of commercial dried egg is supplemented with 10 per cent of dried buttermilk and 5 per cent of meat scraps the incidence of a pellagra syndrome is very slight and growth is excellent.

Dried egg fed to growing chicks as the only source of animal protein resulted in highly significant better growth than that produced by a ration containing the same amount of protein from dried buttermilk. It is probable that this increased growth was not due altogether to the protein. However, the addition of yeast to the dried egg protein ration still further increased growth to a highly significant extent.

Commercial dried egg is not all prepared by the same method and different samples give different results in feeding experiments.

Dried egg white even when supplemented with yeast, milk, or combinations of these in rations believed otherwise complete, failed to produce good growth and chicks were affected with a severe pellagra syndrome.

Poor growth and the pellagra syndrome in an equally severe form resulted from the feeding of either raw egg white or commercial dried egg white in rations otherwise complete. Heating the dried egg white at a high temperature had no effect on its nutritional value. However, when dried egg was fed at the same protein level, growth was incomparably better and the pellagra syndrome almost absent. The vitamin A of the egg yolk probably was the cause of the increased growth, but there was undoubtedly a factor apart from vitamin A which tended to prevent this nutritional disorder.

The work of other investigators is substantiated in that coagulating egg white in some way markedly improved its nutritional value.

Feed Laying Mash All Year

Hens fed a laying mash all the year produced an average of 112 eggs per hen; the eggs were valued at \$2.11 per hen, and there was a total return of \$238 per hundred dollars invested in the poultry flock, according to studies by M. L. Mosher and H. C. M. Case, published in bulletin 444 of the Illinois Agricultural Experiment Station.

In contrast, hens on farms where mash was fed only part of the year produced only 86 eggs per hen, valued at \$1.48, and a total return of only \$185 was earned for each hundred dollars invested in the flock. On a relatively small number of farms where no mash was fed only 79 eggs were produced per hen per year, valued at \$1.27, and the entire flock brought an income of only \$156 per hundred dollars invested.

A combination of early hatching chicks and feeding of laying mash thruout the year, led to excellent results, according to these studies. Flock owners who hatched their chicks in February or March and fed a laying mash all the year had a yearly production of 117 eggs per hen and a return of \$267 per hundred dollars invested in the flock. But on the farms where the chicks were not hatched until May or June and laying mash was not fed at all or was fed only part of the year, only 81 eggs were produced per hen and only \$148 was realized per hundred dollars invested in the flock.

Alfalfa Meal Tolerance by Hens

How much alfalfa leaf meal a laying hen can handle was learned in experiments at the Rhode Island State College with feeding different levels of this product in the mash fed to hens.

Five groups of birds were fed rations in which the mash formula contained 0, 5, 10, 15, and 20 per cent alfalfa leaf meal. There was no appreciable difference in the level of hatchability of eggs obtained in levels up to and including 15 per cent alfalfa leaf meal. The 20 per cent group showed a hatchability percentage considerably lower than that in any of the other four groups. Similarly, the 20 per cent level caused the lowest egg production and the poorest feed conversion factor. Surprisingly, however, it produced the lowest rate of adult mortality.

No great difference was evident between the 0, 5, 10 and 15 per cent levels in egg production, hatchability, and average feed consumption, altho, the pen receiving no alfalfa leaf meal showed a slightly better feed conversion factor than the other groups.

Variation in yolk color, as measured by the Munsell spinning disk indicator, indicated a close association with the amount of alfalfa leaf meal contained in the mash formula. The most striking relationships between ration and yolk color showed a decrease in the extensiveness of yellow and black and an increase in the amount of red making up yolk color as the alfalfa leaf meal levels were increased.

Poultry Feeds and Feeding


By R. S. DEARSTYNE, Head of Department of Poultry Science, N. C. State College, Raleigh, N. C.

The last two decades have witnessed a tremendous advance in information as to the nutritional requirements of the domestic fowl and how to meet them. The time of the haphazard method of feeding poultry is rapidly disappearing and an appreciation of the nutritional requirements of poultry is being evidenced both by the poultryman and by the miller.

The fowl for normal growth, performance, and reproduction must have proteins, carbohydrates, fats, minerals and vitamins in the right quantity and of good quality in the diet. Each of these food factors performs a specific function. Proteins are the basis of muscular and of glandular tissue and likewise enter largely into the composition of the egg. Carbohydrates and fats furnish a fuel, which on oxidation supplies energy to the

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by Lippincott & Card

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bird for its continuous activities. Minerals are necessary for bone, tissue, and feather building and enter largely into many bodily functions of the bird, while vitamins are vitally essential for body health and for normal reproduction.

As an appreciation of the complexity of the problems of poultry feeding is felt, there is a tendency on the part of many commercial poultrymen to discontinue home mixing of mash and use commercial mashes. This places the burden of responsibility on the miller who must recognize that his volume will grow only as the quality of his feed is maintained. Inferior mashes, composed of low quality ingredients are not economic either to the feeder or to the miller in the long run. An automobile makes poor mileage on a low grade gasoline and inferior feeds give poor results and nullify a most carefully planned and carried out breeding program.

Practically all mashes are built around a cereal base of corn, wheat, and oats. These are the carbohydrate types of feed stuffs and are used primarily for that purpose. If high digestibility of this type of feed stuffs is to be obtained, a high grade of cereal ingredient must be used, for, as the grade of ingredient is lowered, digestibility is reduced and the mash becomes inferior. Superior mashes contain a variety of protein concentrates in order that a variety of amino acids be secured. As in the case of cereals, quality must be considered in protein concentrates. High quality meat scraps must be used. Improperly processed fish meal or fish meal developed from decayed fish is very poisonous to birds and many instances of food poisoning of fowls are on record because of the use of such fish meal. Milk products are probably our most complete and most easily digestible ingredient in the mash. Milk is high in lactose and there probably exists a relationship between milk and the hatchability of fertile eggs.

All mashes contain mineral supplements as bone meal, ground limestone, salt and manganese. These are inserted for the purpose of supplying minerals for building egg shell, bones, and for certain body functions. The calcium-phosphorus ratio of the diet must be carefully figured or the condition known as slipped tendons or perosis in young birds may result.

The advance in knowledge of the vitamin requirements of the bird has developed to

the extent that this problem requires the careful study of the miller. While cod liver oil is inserted into mashes for its vitamin A and D requirements, we have other major vitamin requirements such as B and G which must be met. The B content is usually found in the cereal grain constituents and the G content from milk products. Many poultrymen and millers underestimate the value and necessity of yellow corn both as corn meal in the mash and as a constituent of scratch grains. When white corn is used instead of yellow corn, a vitamin A deficiency may arise and be reflected in the development of nutritional roup, low vitality, poor hatchability, poor growth, and susceptibility to disease, especially respiratory diseases.

Ground Wheat Provides Vitamin G Growth Factor

Ground wheat as a source of the vitamin G growth factor when used in chick feeding in sufficient quantity, was the subject of experiments reported in *Poultry Science*, summarized as follows:

When 3 per cent of alfalfa leaf meal was used with 50 per cent of ground wheat in addition to the basal constituents of the ration, sufficient vitamin G was provided for practically normal growth. With 30 per cent of ground wheat there was a deficiency of vitamin G when dried yeast was not used.

A certain type of paralysis was prevented and better plumage structure resulted when the ration contained either 73.9 per cent of ground wheat, 15 per cent of bran, 15 per cent each of bran and middlings, or 5 per cent of dried skim milk. None of these ingredients, including yellow corn, proved appreciable sources of factors necessary for normal pigmentation in the feathers of Barred Rock chicks.

Purchases of wheat by the F.S.C.C. up to Oct. 8 aggregate 15,658,000 bus. and exports including flour as wheat 14,000,000 bus. The subsidy loss on the wheat was 12.6c per bushel, and on the flour 45c per barrel.

John J. Rammacher Passes On

John J. Rammacher, 58, president of the Eastern Grain Elevator Corp., Buffalo, N. Y., passed away at his summer home in Lotus Bay, Ont., late on Oct. 7. A week earlier he had suffered a broken hip and severe internal injuries when a horse from which he was dismounting reared and fell on him.

A native of Buffalo, Mr. Rammacher's education was followed by connections with several companies in the Buffalo grain trade.

Jointly with Nisbet Grammer, Mr. Rammacher organized the Eastern corporation in 1910, serving as treasurer of the corporation until the death of Mr. Grammer in 1935, when he succeeded to the presidency.

During the years of their association, Mr. Rammacher and Mr. Grammer built up the Eastern corporation until it was operating a total of more than 10,000,000 bushels of elevator space in Buffalo. Their elevators included the Concrete Central Elevator, the Electric Grain Elevator, the Iron Elevator, and the Nisbet Elevator.

In 1923, Mr. Rammacher, with Mr. Grammer, entered the lake transportation field with organization of the Eastern Steamship Corporation, and in the succeeding three years they built a fleet of 21 Montreal-type boats capable of passing thru both the St. Lawrence and Welland canals, and added four upper-lake boats to bring grain to Buffalo.

Mr. Rammacher was reputed to have made the largest single sale of cash corn in the history of the grain business when he sold 4,000,000 bushels in a single order to the Farmers National Grain Corp.

Active in promoting the interests of Buffalo as a grain center, Mr. Rammacher was a past president, and a director of the Buffalo Corn Exchange.

Manganese Is Essential

Manganese in small amounts is a necessary constituent of bones in the chick and is essential for normal bone development, in addition to preventing other deformities coincident with perosis, according to studies by W. D. Gallup and L. C. Norris, at Cornell Experiment Station.

They compared the length of leg bones of chicks reared on manganese-deficient and on manganese-sufficient diets by X-ray photographs at frequent intervals and by sacrificing representative chicks at 4, 5, and 6 weeks of age. In practically all cases they found the bones of the chicks on the low-manganese diet were shorter by from 7 per cent to 8 per cent than the corresponding bones of control chicks.

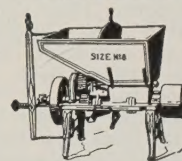
Bone analysis showed a minimum value of 0.06 mg. of manganese per 100 grams of dry material for chicks on the low manganese diet as contrasted with average values of about 0.2 mg. in the controls. Partial depletion of manganese in the bones resulted in deformities at the joints and at the ends of the bones.

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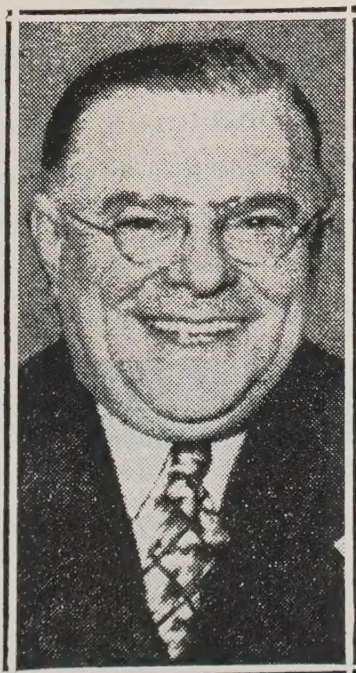
The book contains the latest information on feeding, a complete discussion of the new vitamin G, practical information on the two-story poultry house and heating, disinfecting incubators, battery brooding and raising chicks on screened platforms, and the latest discoveries in treating pests and diseases, including Leukemia, and the newest information on disinfecting houses. This edition also describes the new methods of feeding turkeys.

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J. J. Rammacher, Buffalo, N. Y., Deceased.

Keeping Ahead of Customers

By LYMAN PECK, Fort Wayne, Ind.

To keep ahead of our customers it is necessary to realize the responsibility that rests upon the shoulders of every feed dealer and manufacturer. There are definite obligations due the customers which we must assume



Lyman Peck, Fort Wayne, Ind.

because we are in business. Our observance of these obligations determine the progress that we will make.

The feed business has advanced rapidly. In the beginning stockmen depended upon nature to furnish the rations for their livestock, and there are still a few who believe, or pretend to believe, that this method is the best.

Fifty years ago millers burned bran because its feeding value was unknown. Then came the beginning of the mixed feed business. Farmers began to use bran, middlings, and other so-called by-products, adding them to their home-grown grains and hay.

The next development was the mixture of these ingredients at a central point, and their sale as a mixture under various brand names. Thus the commercial mixed feed business came into being. Up to this point the advance in feeding was of an empiric nature, necessarily so because few understood animal nutrition. Real development of the feed business did not come until we had scientific research in biological chemistry.

Chemists have demonstrated that man can improve upon nature, and that it is not necessary or economically sound to depend upon nature to furnish all the feedstuffs for livestock or to feed these feedstuffs in the form furnished by nature. A good example of this is the soybean. Chemists and investigators in nutrition have proved that removing the oil from the beans and applying proper heat increases the feeding value of the meal. A pound of soybean oil meal is worth much more than a pound of soybeans for feeding to livestock or poultry, regardless of the method used for processing, provided the optimum heat is applied during the operation.

Not many years ago the cheese factories ran their whey into the sewers. Research proved dried whey has feeding value and it is now widely used in poultry and other feeds.

Research.—Feed dealers and manufacturers owe much to the research workers who have discovered these feeding facts and enabled us to better serve our customers. The experimental data of the Agricultural Experiment Stations is public property. Any one can obtain it, tho not all can digest it. Most feed dealers have neither the time nor the training in research to collect and evaluate this vast amount of data which directly or indirectly relates to their business.

The successful feed manufacturer realizes that feed research is necessary and hires research men who devote all their time to this work. Big units in business are a natural result of the practical application of research. Fact finding is a necessary part of their business. The results of their studies are reflected in the products they produce. That is a part of their obligation to their customers. If a feed is made to produce results there is more in the bag than that which meets the eye. These hidden but most important factors are the studies in nutrition, the practical application of this knowledge and the integrity of the manufacturer.

Years ago we gave much attention to the chemical analysis of a feed. Today chemical analysis means little. You can take chicken manure, feathers, sawdust, and leather, and make a laying mash that has the same chemical analysis as to protein, fat, and fiber, that will be found in any good feed. Chemically it is all right, but hens will not lay eggs on such a ration.

Protein Content?—E. R. Darling stated in a recent article: "The most common question asked when feedstuffs are purchased is, 'What is the protein content?' It is to be regretted that we have educated ourselves to such faith in protein, for a protein statement carries but little real value. It would be far better if we asked, 'What is the nutritive value of the protein in this food?' It is a dear price that we are paying when, through the use of inadequately and thoughtlessly chosen feedstuffs our animals suffer from malnutrition. To feed at a price and not consider the response in the animal is the first step on the way to failure in raising any animal."

Our obligations require us to study the feeder's local situation as well as the nutritional requirements of the animals he feeds. If he lives in a territory where large amounts of grain are produced it is obvious that he should feed as much of home raised feed as possible and purchase concentrates which contain those proteins, minerals and vitamins that will make his home grown grains into a balanced ration. But if we sell feeds in a section where little grain is produced, or where a crop failure has occurred, straight or complete feeds are the most economical for the feeder. In the long run our business must be based upon the requirements of our customers.

Each generation of feeders becomes better educated.—Experience in 4H Club vocational agriculture projects and attendance at short courses at agricultural colleges is producing a class of customers who demand facts and who are not so prone to price buying as were their parents. We can hold the confidence of this class of customers only if we are familiar with advances in nutrition. We must know as much as they do. We should know more. Business knowledge must keep ahead of customer education; otherwise we may lose that most valuable business asset, customer confidence.

To keep ahead of our customers we must remain open minded. We must base decisions upon factual evidence. We must not be swayed by personal prejudices. The knowledge of nutrition is advancing so rapidly that the rations we made a few years ago are like a model T Ford, just as good as they ever were, but not able to meet modern requirements.

We should step back occasionally and to get a better perspective of our business and business trends. Times and conditions change. The rapid advance in the production and use of soybean oil meal is one illustration of trends. Ten years ago the production of soybean oil meal in this country was about 21,000 tons per year. Today it is over 700,000 tons.

The manufacturer or dealer who does not realize he owes a definite obligation to his customers, his community, and his industry, is not keeping abreast of the times. Sooner or later he will be shipwrecked on the rocks of economic pressure. In the long run we profit from our contacts with our customers in direct proportion to what we contribute to them.



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Runs Test Plots on Hybrid Corn

[Continued from page 328.]

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Hybrid corn breeding opens tremendous possibilities for feeders and for corn industries, believes Manager Arnold. "It has been noticed," he says, "that rats do a great deal of damage to some cribs of hybrid corn, while they pay practically no attention to cribs of other strains of hybrids. Rats apparently find some varieties particularly palatable, others distasteful.

"Among the hybrids that have been developed is a speckled variety that is particularly palatable to hogs and cattle. They will consume much more of it than they will of ordinary corn, and gain in weight rapidly as a consequence. This variety is not recognized for making high yields. Its particular merit is its palatability.

"It is conceivable that the future holds much more for hybrid corn breeders than anything



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they have experienced to date. Special hybrids, with high starch content, for the distilleries, other hybrids for the corn products factories, still others for the feeders, and even new corn foods for human consumption are possibilities."

Southeastern States Growing More Corn

By HARRY HUNTER, executive sec'y American Corn Millers Federation

Almost every farmer uses yellow hybrids; in fact, there are very few white hybrids in existence. Therefore, the future for farmers lies in the use of white hybrids. Here is where there is more money to be made from corn, rather than following other farmers by planting yellow hybrids.

We know the reason for the trend toward yellow corn is on account of vitamin A. The carotene content in different varieties of yellow corn ranged from one point in Morgan variety, to eleven points in Indiana 880. With this widespread difference in content, in the many varieties of yellow corn, it shows that a farmer or feed mixer cannot depend upon yellow corn entirely for vitamin A.

This point indicated, then, that white corn or white hominy feed can be used to as good advantage because the other ingredients are usually added to get the necessary amount of vitamin A content.

I wonder if any of you men have been thinking about how the A.A.A. is going to affect your individual businesses or the crops from the farms of Ohio.

Some time ago, I visited a friend from the South and he told me that he could buy all the white corn he could use right in his own town at a delivered price of 60c per bushel, whereas, if he bought this same grade of corn off the St. Louis market, it would cost him 75c. He stated that not only had this been the going price all season, but he could get all the corn he needed, and his mill could grind Southern corn and supply the Southern market which meant that, if the Northern mills wanted to "get in" on this Southern market (as they have always done previously) they would have to overcome a fifteen cent price differential. He went on further to say that next year this differential would be more firmly established, for the South would have more corn, and the year following it would be even more increased because the A.A.A. calls for a yearly expansion in corn acreage all thru the South.

Another interesting thing this man told me was of the beef cattle raised in Montana, fattened in Nebraska or Missouri, slaughtered in Omaha, Kansas City or St. Louis and then shipped as beef thruout the South. However, he feels that the time is nearly at hand when the South will not need any more Montana beef, for with the raising of corn, they can raise their own beef cattle and feed them with their own corn. Therefore, if such a situation ever exists, the Montana cattle raisers will have to seek other markets to absorb their cattle. He went on to state that the same thing holds true of Iowa hogs and that the Iowa farmer might as well look for other markets for his hogs, for, with the continued increase of corn acreage in the South, it means more Southern hogs would be consumed in the South.

Hay Movement in September

Receipts and shipments of hay at the various markets during September, compared with September, 1937, in tons, were:

	Receipts		Shipments	
	1938	1937	1938	1937
Baltimore	36	178	.....	.....
Boston	242	484	.....	.....
Chicago	705	2,527	12	120
Ft. Worth	22	22	.....	.....
Kansas City	2,508	6,744	444	1,308
Minneapolis	128	349	84	.....
Peoria	.....	20	270	.....
St. Louis	12	336	72	312


Plus Oystershell Proves Superior

In experiments by H. O. Stuart and C. P. Hart at the Rhode Island Experiment Station, hens were fed a basic mash containing 2.3 per cent calcium carbonate plus oystershell ad libitum, as compared with 1-, 5-, and 8-per cent levels of calcium carbonate in the mash with no supplemental source of calcium, each group receiving the same scratch mixture.

One per cent calcium carbonate in the mash proved insufficient to meet the needs of laying hens as evidenced by low egg production, high feed requirements per unit of production, poor hatchability and low breaking strength of the shells. The standard ration containing 2.3 per cent calcium carbonate plus oystershell proved superior to either the 5- or 8-per cent levels with reference to average egg production, hatchability, feed utilization, and shell strength, and there appeared to be very little advantage of the 8 per cent over the 5 per cent calcium carbonate level. Birds on the standard ration

consumed less calcium carbonate than those fed the 8 per cent mash, indicating either poor utilization of excessive amounts of calcium carbonate or a better utilization of coarsely ground than finely ground sources of this compound.

Failure of the government control to aid the farmer is indicated in the press releases of Sept. 29 by the Department of Agriculture stating that "prices are far below the figures at this time a year ago, when the September index was 118 per cent of pre-war, now 95 per cent. Wheat and corn are selling for about half the prices a year ago, cotton sells for less money, and the price of hogs shows a 25 per cent reduction." Farmers also are suffering from a decrease in the exchange value of their products, the Bureau reporting the ratio of prices paid to price received as having dropped from 91 per cent of pre-war on Sept. 15, 1937, to 78 per cent at present.



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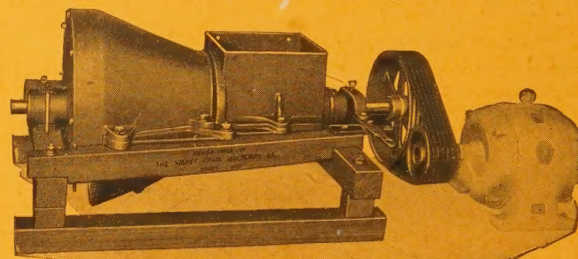
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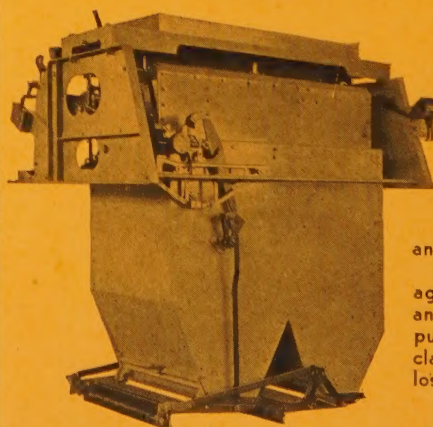
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